INFLATION AND STABILIZATION POLICIES IN LATIN AMERICA
(An empirical approach into the "Monetarist-Structuralist" Controversy)

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* At a later stage of the work the three subsections below were added. The numerical order of the pages is thus discontinued until the section below is reached.

Summary

The background of this work is the problem of growth - or stagnation - with stability - or instability. The main interest is price instability in the context of underdevelopment. Initially the work starts with a universe, in the present case Latin America and the post-war period (1946-65). An abstraction follows, with price instability and industrialisation indicators, from the relatively stable countries of the region (Venezuela, Central America and the Caribbean). The next step is to re-state the complete relationship between the growth of output and inflation in the selected countries (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, and Uruguay). This relationship is then examined - empirically and with the aid of simple statistical tests - in terms of the causes of inflation and its policy cures. With respect to the last point - stabilisation programmes - the study is eventually reduced to certain periods in the policy-making experience of Argentina, Chile, and Peru. Resuming, this work states a general case, selects certain tools and examples, and moves into specific issues.

The nature of Latin-American inflation and the search for its remedies are highly controversial subjects. Throughout the past two decades they have taken the form of what is known as the 'Monetarist-Structuralist' controversy. The controversy is an irregular intellectual body, not obviously symmetrical, theoretically ambitious, and perhaps too widespread. Still, it is the natural setting to approach the subject of inflation in these countries. Thus this work has tried to make a framework out of the controversy that lends itself to the study of the problematic. The causes of inflation are then divided according to monetarism and structuralism and studied in different chapters, although not in isolation from one another.

The monetary, propagating or orthodox causes of inflation are in the supply of money, budget deficits, and wage escalation (here the term has to be stretched). Monetarist analysis, however, has also come to give significant importance to the price instability effects of the devaluation of the exchange rate and induced supply bottlenecks; and it is very concerned with the effects of inflation on savings and investment. Structuralism is a peculiar emphasis on the cost-push causes of inflation, which simultaneously stresses changes in the growth and composition of demand. The structural or fundamental causes of inflation take the form of supply bottlenecks: foreign exchange, agricultural output, import-substitution industrialisation, and infrastructure; although importance is also given to the factor distribution of income.

The cures for inflation are again examined within the framework of the controversy. Attention is concentrated, however, on orthodox policy measures - monetary, fiscal, incomes and exchange rate - and only marginal comments are made on domestic and foreign sector structural policies. Lastly, the controversy is carried to the confrontation between structuralism and the IMF's sponsored stabilisation programmes. Special attention is given to the 'Frondizi Plan' in Argentina, the Klein Sacks Mission and the 'Alessandri Plan' in Chile; and to the IMF's stabilisation measures of 1958-1960 in Peru.

PART I

INTRODUCTION

CHAPTER I

Scope, Approach and Limitations

The object of the work is the well known problem of inflation in Latin America. This problem is approached following the so-called "Monetarist-Structuralist Controversy"; something which *a priori* sets certain theoretical implications, as well as an ambitious scope. Thus, as a consequence of adopting the theme of the controversy, several specific objectives have to be examined:

1.- The theoretical and policy problem of growth with stability, the main interest of the controversy.

2.- The ordering of the polemics into a relatively abstract frame of reference. This means selecting and qualifying the main causes (or variables) of inflation, and explaining further implicit assumptions or issues which may have

b been mentioned in the literature but which are not really studied.

3.- The simple empirical testing of these variables, whether explicit or implicit.

4.- The interest on economic policy cures; and, particularly, the conflict between orthodox stabilization programmes and academic structural reforms.

Thus the study of the monetarist-structuralist controversy involves *per se* the analysis of the interrelated problems of stability or inflation and growth or stagnation. This work, however, places emphasis on the causes of inflation and its cures, and only secondarily of the underdeveloped mature of Latin America. The study is on the theory of inflation, and not on growth or development theories. But, abstraction from the subject of growth may be difficult and, from our point of view, undesirable. One has thus been willingly forced into the study of inflation with a closely undercurrent streak of the growth priority ojective. On the other hand, inflation has been traditionally a subject for monetary and budgetary theories; something which, in the view of some, is unacceptable for these countries. The later oppinion, for our purpose, is too extreme in the sense that the financial causes of inflation also merit careful attention. For example, the controversy has really neglected, with exception, the subject of income velocity of circulation. It is thought useful, however, to introduce the topic into the controversy and to try to interpret the experience of Latin America with reference to monetary theory.

Apart from the above background, the scope of this work may appear to be too wide. It is necessary to justify both the scope and the approach. The specific objectives are a reflection of what the controversy is and is not . The controversy is on Latin-America's inflation as a whole; firstly, with reference to the theoretical need of studying the causes of inflation (or variables) with reference

to one another; and, secondly, its object is to generalize for the region as a whole, so that for empirical purposes inter-country comparisons become a pre-requisite. It was felt, perhaps optimistically, that at this level the empirical possibilities of exploring the controversy and establishing inter-comparissons offered an opportunity for original research. Conversely, the controversy "so far" is a series of oppinions of the authorities on the region. These oppinions to a large extent have taken the form of general theoretical essays. Of course, there are also numerous works which, within the controversy and although statistically minded and specific, only stress the role of partial variables in the multiple relationships the problems of inflation and growth present. But, since the general controversy is valid -judgying by the interest and work it has produced for at least two decades- it may be helpful to understand partial studies within our framework for the controversy. This work, besides trying to sistematize the issues, takes a first approach into the challange implicit in the controversy; the simple empirical testing of the related key variables in the region's inflation and, sometimes, the introduction and examination of issues that have been left aside by others.

As a consequence of the study of the above causes of inflation, the economic policy aspect of the problem has to be considered. The main interest here is the conflict between short-term and orthodox policies that aim at stabilization and structural policies in the context of a semi-industrialized Latinamerican country. But the interest is also on discussing the possibility of divising short-term financial policies which aim at stabilization in terms of a growth priority. The fact that the study of the controversy has to be taken for Latin America as a whole led to two further interests and tentative conclusions. Generalizations about the region may be quite valid and important if they are based on the research of case studies. Because such research gives the possibility of significant interregional comparisons in the fields of inflation, growth, and policy making. The study of short-term measures -orthodox or unorthodox- at the case level may result in inter-comparisons and generalizations with the aim of discussing the financial compatibility of growth and stability in Latin America (This could prove to be an interesting field of specialization).

Moreover, these successive steps start on a general level that develops towards specific issues and more detailed case studies. Hence it is an exercise on an over-all problem which selects certain means and moves towards a more specialized field: a closer look into short-term stabilization measures. The experience ought to result in some conclusions and suggestions of more and new studies on the subject.

Lastly, the interest is not limited to the "contents" of the controversy; it is also involved with the "existance" of the controversy. Why did the controversy start to begin with? Why has it been raging over the past twenty years? Is it over? if not -when is it going to? Are the opponents irreconcilable? Has it served any purpose? Is it a fundamental background for the future of Latin America's economic policy? Can it lead the way towards a General Theory suited to the conditions of the region?

In summary, as it was said, the approach has three parts: an introduction, the discussion of the controversy, and a last part on economic policy and actual stabilization programmes. Part I states the problem of growth and stability in Latin America; firts it generalizes about the region and later it abstracts from the relatively stable countries and discusses the magnitude of the problem. Part II deals, empirically and in theory, with both sides of the polemics. (The statistical limitations are discussed in the respective Chapter). It concentrates on the "monetarist" variables:the supply of money and velocity, budget deficits, devaluation of the exchange rate, and wage escalation (here the term monetarism has to be stretched). There is also a brief exposition of some of the effects of chronic inflation on savings and investment, as well as on the role of "induced" supply bottlenecks and price distortions on the inflationary spiral. Later it discusses the structuralist variables: agricultural output, foreign exchange, import-substitution industrialization, public investment, and income distribution. In Part III -with the above information- the controversy is carried to economic policy and to the experience with stabilization programmes in Argentina, Chile, and Peru.

The bibliography on the Latin-American dilemma of stability versus growth is massive. Thus this simple study cannot pretend in any sense to be comprehensive. The position adopted was one of selecting works which illustrate the main issues. However, a bibliography, which was compiled, is presented. The exposition uses abundantly both the works of Latin?American economists and policy makers and those works of Anglo-Saxon and French authors who have studied Latin America at some point. The main body of literature on structuralism is that around ECLA and Dr. Prebisch; but special mention should also be made to the Chilean and Mexican schools and partidularly to some important British contributions. Monetarist literature is particularly strong in Brazil -perhaps rightly so- and popular with North-American economists. There are, of course, numerous exceptions to these generalities.

Chapter 2

Growth and Stability in Latin America: The Problem in General Terms

The specific object of this work, as it has been said, is to discuss empirically the causes of Latin America's inflation and the policy cures proposed. The general background to the subject, for reasons that will be presented along the exposision, is the problem of price instability in the context of growth -or, more frequently, stagnation. The general problem may be approached, broadly speaking, from two angles:

1.- The theoretical background of the subject -abstracting from the dynamics of growth- lies in the persistent controversy between classic economics and unorthodox theories; with special reference to Keynesianism and Merxism in the latter. Firstly, the problem could be reduced, to the economics of Milton Friedman and the different writers that form the neo-Keynesian tradition. The problem relates not only to the possible relationship between the supply and the demand for money and the price level, but to the incorporation of the financial market into the real-income market*. Secondly, the problem could be followed with respect to inflationary theories and the demand-pull or cost-push controversy**. The problems of growth and the price level, on the other hand, is a relatively new subject. Its point of departure, however, is the contemporary interest on development theories and, specifically, the construction of growth models. Growth models start from the convention of "real" growth relationships. They usually postulate a constant ratio of savings to income and proceed to determine the conditions under which the model would result in a steady growth path; the rate of growth being determined by the exogenous rates of population growth and technological progress and the endogenous savings rates which would maximize consuption per capita along the steady growth path. Now, the problem of introducing money into such a model lies in incorporating money and monetary growth into the concept of income; and deducing the influence of variations in the rate of monetary expansion in terms of the rate of changes in prices and the proportion of resources available.for investment.*** A starting point has been to consider money -as an instrument of exchange and a store of value- as socially virtually costless to create and hence that its stock would be maintained at a socially satietal

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* For summary exposision of the subject see H. Johnson's Essays in monetary economics (Allen and Unvin, London).

** For a summary exposision of the subject see M. Bronfenbrenner and F.D. Holzman's Survey of inflation theory in Am. Econ. Rev., 1963.

*** For a discussion on the subject see J. Tobin, Money and economic growth, Econometrica 1968.

level*. With reference to monetary policy it implies that the controls on money and quasi-moneys reduce the use of money and money substitutes as a source of investment opportunities and hence reduce the growth of the economy. But, the proposition refers to the optimalization of the holding of real balances, where the gains of using costless paper as a medium of exchange and store of value could be dissipated through inflation. The conclusion emerges that monetary efficiency, growth and social welfare require the management of money and quasi-moneys so as to "influence" the price level and prevent or check inflation.

2.- The general problems of growth and stability has also been approached, both in advanced countries and in Latin America, from the angle of general economic policy: ideally to reach a compatible set of economic policies and economic objectives where a steady growth in output and technology is compatible with full employment, external and internal stability, and the management of public finance. The emphasis of the Latin-American literature, -in general terms, but also with special reference to the problem of inflation- on this approach has been very great**. It is for this reason -as well as for the purpose of studing inflation as seen be the "monetarist-structuralist" controversy -that this work will follow this approach***. Indeed the overall intellectual desire in Latin America, at least for the past forty years, has been the elaboration of a development policy. This is present both in the work of economists and public administrators. Though the situation may vary from country to country, and from period to period, it is safe to assume that the long term objectives of a development policy, although more academic than of a practival nature, are everywhere the following: to maximize the rate of growth and incorporate modern technology; to increase employment, and distribute income more equally; and, to achieve and maintain "a reasonable" degree of domestic and external stability. It may be argued that these policy objectives differ in approach from those of advanced countries. This is not to say that they are not present in, say, the United States or Wester Europe, but that the order of priorities is different and perhaps less ambitious in these last countries.

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* For a discussion on this avant-garde proposition see A.H. Meltzer, Money, intermediation and growth, Journal of Econ. Literature, 1969.

** For an introduction into the subject of growth and the development policy approach see ECLA (1).

*** This does not mean to say that the region's literature does not represent an important -and sometimes disregarded- contribution to economic theory. The relation between the problem of growth and stability and the balance of payments and import substitution industrialization are but two subjects in which the region has taken a lead.

The difference in the policy approach may well lie in the fact that Latin America aims at growth with stability in a setting of widely fluctuating rates of growth, considerable unemployment, a high concentration of income, and bewildering domestic and external desequilibria and that this instability is "severer" than in advanced countries. Moreover, this has led, as it will be seen, to the idea that the problem of instability has to be studied strictly in terms of the growth objective; or, alternatively, to place the problem in the context of underdevelopment (an ambitious term which, nonetheless, is useful to understand the region's inflation). But, from the theoretical point of view, this "local discussion" on economic objectives and priorities may be considered an academic extension of the problems faced by western capitalist economies. Both in Latin America and abroad there is a disagreement with respect to the causes of slow growth or stagnation and instability, and with respect to the economic tools to diagnose and cure the problems.

Having selected the second approach -which abstracts only superficially from the monetary and demand-pull cost-push controversies in advanced countries and totally from growth models -it is convenient to qualify its content:

1.- The approach is then a consequence of three things: the literature of the region -see ECLA again (2)- the specific interest on inflation, its causes and cures; and, the adoption of the monetarist-structuralis controversy as a guideline into the subject (Parts II and III of the thesis develop the argument).

2.- The derived interest on the close interrelationship between the growth performance and inflation. That is, for the purpose of this work, the focus on inflation and stabilization policies serves as an empirical guideline to understand the region's growth performance and relative failure in the use of economic policy.

3.- A starting point would be first to describe the poor growth performance and second to incorporate the approach based on the causes of inflation and its cures.

Latin America expanded at a considerable rate until the early 1950's as a consequence of the expansionary trends in the world economy due to the recovery from the Great Depression, Second World War, the postwar boom and Korea. Table I, shows that between 1945 and 1955 rather high rates of growth were achieved

Particularly when compared to latter and previous periods. The trend, however, has been reversed in the next decade and its aftermath. The negative impact of this tendency on per capita income has been meanwhile aggravated by the acceler ation of population growth. Turning to Table II, it may be seen that by 1955-61, in per capita terms, only Brazil, Peru, and Venezuela exceeded the Latin-american average rate of growth, which was only 1.4%. The slowness of growth has continued during the last four years of the period. Two facts ought to be distinguised. Firstly, Brazil's growth rate has declined, Peru's has been maintained, and Mexico's has increased (it is useful to distinguish these three countries because throughout the exposition they represent the more favourable trends in the region). Second, during 1964-65 most countries showed a remarkable recovery in GNP. This boom, caused by an abnormal recovery in world markets for primmary products, may well stop when such markets return to normality. In fact, the growth performances deteriorated again in 1966. Therefore this should not be taken as the indication of the beginning of another period of high long-term growth trends, but only as a cyclical spurt*.

The trends in per capita product only reflect the real failure in Latin-american growth and growth policies. The serious problems underlying the poor rate of growth are better revealed through the behaviour of the export sector, the chronic devaluations, the level of international reserves, and the degree of external disequilibrium; through unemployment and the concentration of income; through the performance of the agricultural sector and the obstacles and price contradictions the incipient industrialization effort uncounters; through the defficient money and capital markets and ill-managed financial policies; and, in general, through the underdeveloped nature of the economy.

It is both fortunate and complex that price instability is related to the above factors. Indeed the relationship between inflation and the above factors -something which entails the explanation of its causes- is what interests us here as a clue to the understanding of the growth process. Perhaps the best known Latin-american economic problem is that of its economic instability, both domestic

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* In some countries like Argentina and Chile the 1964-65 increase, writes Dr. Sunkel, is mainly the consequence of the resumption of expansionary policies after years of restriction. The rate of growth of GNP per capita did achieve rather high levels for a short period in the early 50's (4.6%) but has been declining substantially ever since in almost all countries, including those few like Brazil, Venezuela, and Ecuador, which have had very dynamic economics (3).

TABLE I

Rates of Growth of GNP and Population, 1935-1965, in Latin America

Period	GNP	Population	GNP Per Capita
1935-40	3.3	1.9	1.3
1940-45	4.3	2.1	2.2
1945-50	5.7	2.5	3.2
1950-55	4.7	2.7	2.0
1955-61	4.3	2.8	1.4
1962	3.5	2.8	0.7
1963	1.8	2.9	-1.2
1964	5.4	2.9	2.5
1965	5.0	3.0	2.0
1966	3.1	3.0	0.1

Source: Economic Survey of Latin America, 1965-1968, UN, N. Y.

a) Excludes Cuba

b) GNP in 1950 Prices

TABLE II

Growth of Total and Per Capita GNP in Latin American Countries

(1945-50-1965)

Country	1945-50	1950-55	1955-61	1962	1963	1964	1965
Latin America[a]	5.7	4.7	4.3	3.5	1.8	5.4	6.2
Argentina	5.0	2.0	1.9	-3.3	-5.2	8.2	7.8
Brazil	6.1	5.7..	6.1	5.3	1.6	1.4	3.8
Chile	2.8	3.1	3.7	6.5	1.7	4.4	4.1
Colombia	4.7	5.3	4.0	5.0	3.5	4.5	3.2
Peru	4.4	5.1	5.3	7.5	3.7	5.5	5.8
Uruguay		4.2	0.3	-2.2	-1.0	1.1	1.2
Bolivia	1.9	0.9	0.7	4.1	6.2	6.2	5.5
Ecuador	9.2	5.4	4.2	4.6	3.3	4.5	3.3
Mexico	6.3	6.7	5.4	5.0	6.3	10.0	5.4
Venezuela	10.6	8.7	5.7	6.3	5.9	7.6	6.2
Central America	5.8	4.6	4.1	6.3	5.7	6.7	6.8
GNP PER CAPITA							
Latin America	3.2	2.0	1.4	0.7	-1.2	2.5	3.3
Argentina	2.8	-0.2	0.1	-5.0	-6.8	6.2	6.3
Brazil	3.4	2.6	3.0	2.4	-1.5	-1.5	0.7
Chile	1.0	0.9	1.2	4.1	0.8	2.1	1.7
Colombia	2.0	2.4	1.2	2.2	0.5	1.6	0
Peru	2.6	2.8	2.7	4.3	1.2	2.4	3.2
Uruguay			-0.9	-3.4	-2.2	-0.2	-0.3
Bolivia	-	-1.1	-1.6	1.9	3.8	3.7	3.2
Ecuador	6.2	2.5	1.1	2.1	-0.1	1.0	-0.1
Mexico	3.5	3.6	1.4	1.6	2.9	6.5	2.0
Venezuela	7.3	4.6	1.7	2.6	2.2	4.0	2.7
Central America	3.1	1.6	0.8	3.1	2.3	3.4	3.4

a) Except Cuba

b) Source: Economic Survey of Latin America, 1963-68, United Nations, New York.

and external. The record shown by price and exchange indices is not only very bad in a historical sense for most countries, but it has also become worse in recent years (for a discussion turn to chapters 3 and 4). Inflation is thus a a complex phenomenon that in the extreme characteristics of Latin America "brings forth many of its facets". Movements in prices are associated in various ways with changes in the supply of money, its velocity of circulation, the rate of interest, and budgetary policies; movements in savings, investment, and output; variations in wages, profits, and incomes; and, deterioration in foreing trade, the rate of exchange, and international capital movements. "In this profussion of cross-correlations, writes D. Seers, it is easy to indulge in one as a complete explanation, and such over-simplified views are widespread" (5). Chronic price increases are, of course, a result of both economic and financial maladjustment. The causal relationship is, however, so eomplex that it lends itself to such controversy. In Latin America, as it has been repeatedly said, it shapes into two groups. Let us only say here, that monetarists stress the financial and global aspects of the causal effects with emphasis on demand-pull and the stability advantages of the price system; while structuralists rely on the cost-push or "real" causes of inflation with a marked interest for introducing basic economic changes at the policy level.

The relationship between inflation and the different economic sectors, apart from causability, creates two further problems: its dependance on the output growth behaviour; and, its resulting policy recomendations. Because whatever standing is adopted in the controversy will result in conflicting policy measures and in political bias.

It has been more or less agreed that, since the problems of inflation and growth are related in a complex fashion, any stabilisation efforts should not proceed in abstraction of the growth objective. But here agreement may stop. In the view of some* the same factors which have led to a decline in the rate of growth, an increase in unemployment, and concentration of income are also, in asociation with secondary financial mechanisms, the fundamental determinants of inflation. The determinants behind this dual process are: (1) a low per capita income and a regressive distribution of income between sectors and factors; (2) a radical increase in population, urbanization, and the demostration effect or a change in the structure of demand; (3) the level of activity depending on a few export commodities, that do not only face a highly unstable demand but show severe over-supply, despite prosperity in advanced countries; (4) the necessity to

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* this classicapproach is best represented by Dr. Prebisch (6).

import all sorts of goods, including foodstuffs which in the above circumstances cannot be al afforded and lead to external disequilibrium; (5) failure to make an "industrial headway" where mass production industries fail to appear and any equilibrium is precarious; and (6) agricultural and public services supply regidities*.

But these "determinants" also appear in financial factors, and this is where monetarism comes into the picture. Inflation can be attributed to monetary, fiscal, incomes, and exchange rate policies. The fact is that there are both monetary and supply and demand factors behind inflation. But, in the view of some, the former are attributed to the latter. While there is truth in this, it is claimed that probing deeper is essential -as theory has done in advanced countires. One has to answer the Latin-american permissiveness towards money increases, budgetary deficits, wage increases, mark-ups, and so on. But to answer these financial questions account must be taken in changes of demand, fluctuations and trends in the supply of foreign exchange, the behaviour of agricultural and industrial markets, movements in real wages, and so on. It is stressed, by professor Seers for example, that to explain the behaviour of the monetary sphere it is necessary to study economic or real factors. In synthesis, this means stating the problem inflation in terms of growth. It is in this sense that the region's literature represents a contribution to the economics of inflation and growth in the acute circumstances of underdevelopment.

Does the above mean that inflation is inevitable? Not necessarily. The growth of income could in principle take place without these real and financial failures provided output grew sufficiently fast in relation to population, income rose without further concentration, and the balance of payments deficit did not become chronic. The proposition repeats itself in terms of economic policy measures designed to reduce inflation and stimulate growth.

As with advanced countries it is agreed that stabilization should not be achieved in isolation from growth, but there is nothing like a consensus of opinion on how to do it. It is agreed that at times the objectives of equilibria and growth may be conflictive, but also that if in the long-run they are inconsistent it is difficult to imagine sustained growth. There is, moreover a conflict between the policies selected to reach a future compatibility. The important issue lies in the fact that particular objectives -like price stability, industrialization or the reduction of external vulneravility- are not ends but means of obtaining the over-all one. For example, industrialization is not

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* The subject has been amply discussed by Prebisch, Seers, Sunkel and many others working with ECLA (see the bibliography already cited).

itself, but as a means* to growth without chronic imbalances, higher employment, a better standard of living, and less social and political discontent. Price stabilization and financial policies are also in the category of means rather than ends; and, they can surely contribute to growth.

The Latin-american controversy, at the policy level, arrisses because while there are reasons for avoiding inflation in the pursuit of growth (there is no need to list them here), price stability is not always accompanied by growth nor doest it necessarily result in a sufficiently high level of savings and investment. Moreover, the main ultimate justification for the price system is its role in shifting factors of production by variations of prices. In Latin America an important role in stimulating growth (for example, through industrialization) should be played by price changes. Yet in the context of an underdeveloped economy the rigidity in various prices -the reluctance to accept a fall in income or supply inelasticities, due to lack of factor mobility- the price mechanism may well produce more price rises than falls, and severer than those of advanced countries. But, it appears to be a mistake to conlcude that inflation is a by-product of the effort to grow. It is agreed in the region, despite frequent misinterpretations, that economic growth would be easier if chronic inflation could be avoided**. Superficially, this is not what the controversy is about. The role of the price mechanism, however, has frequently led to the following question: are price stability and growth incompatible objectives, and if so, which is preferably? One can fall into a logical fallacy here. The choice is between various objectives and not between the means of obtaining them. The damage done by inflation has to be judged in its effects on growth, income equality, and external vulnerability. The question is then whether the total effects of one policy -say an inflationary one, fiscal and monetary-wese- on the above objectives is better than those of another policy -say, an orthodox stabilization programme-. Still, the answer to the dilemma is in terms of growth. Professor Seers writes: "... only through economic development can ghe economy be made more flexible and strengthened, so that it becomes less prone to inflation. If growth were slowed down in the attempt to avoid inflation the day would be postponed when the economy could develop with less strain and thus less danger of inlfation. A country that pursues stability at the expense of growth, may find that it ends up with neither" (7). The implication of the statement are,

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* For the structuralist opinion see again Prebisch and Seers; and for the moneterist position, professor R. Mikesell.

** Hoever, the subject is a controvertial one (turn to Part II, Chapter 5, Section C).

hoever, a growth priority and presumably the necessity of stablishing at some point a stabilization compatibility. This is a complex subject which may "obscure" the fallacy. Because though it may be true that both structuralists and monetarists suscribe to the conclusion, it is clear that the former emphasize the growth priority, which the latter insist on the "initial" compatibility between stability and growth. If this is true, there is a radically different emphasis on the means of putting a stop to inflation, aside from what causes it: in simply terms those policies conducive to growth may not bring "immediate" price stability, and viceversa*. It is here where deep disagreement exists and where the question of the inevitability of inflation appears. Whether this happens or not, according to Lord Balogh, depends on the following factors: (1) the pace at which economic change occurs (in income and in supply and demand functions); (2) the degree of mobility in factors of production: (3) whether external factors are favourable or otherwise; (4) and the efficiency of government policy (8). Obviously these requisites have not been fulfilled in Latin America nor has there been general agreement in explaining theoretically their relative weights with respect to inflation and growth. Monetarists and structuralists would agree in broad terms that Latinamerican economies, for whatever reason, have been rather inflexible; but the first would again emphasize poor economic policy performance and the second real or supply factors.

Before going into the subject in terms of the controversy, it is useful to set the frame for its study. This frame shall comprise the justification of the generalizations all ready made with respect to the whole region. Secondly, with "instability and industrialization" criteria, the analysis will be reduced to the countries that fit better into the controversy. And, thirdly, it will include a description of the magnitude of the inflationary problem for the countries chosen, with reference to economic indicators, and a delimitation of the historical period involved.

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* The statement is, of course, open to much debate (turn to Part III, Chapter 1).

Chapter 3

A. Generalization about Latin America

It may be argued that it is not justified to speak of Latin America as a whole. According to ECLA (9), despite the great differences among the countries of the region, it is legitimate to do so at this level of generality because of similarities in basic economic characteristics. That is, the problem of underdevelopment and growth policies is a universal one for Latin America. Moreover, as it was seen in the previous tables, almost all countries show a long-run post war decline in the rate of growth. "Each country of Latin America, says Dr. Sunkel, has its own particular characteristics and mix of problems due to differences in size, natural resource endowment, location, political set-up, and the level of industrialization and development achieved (see Table IV). But in spite of these circumstances and of the different dynamic impulse of the various economies as well as the different levels of economic development, some of the basic economic and social characteristicas and problems are to a large extent alike" (10).

The roots of these common characteristics are to be found in the colonial background, in the characteristics way in which these countries were incorporated into the international economy of the late XIX and early XX centuries, in the process of industrialization and diversification which accelerated in some countries during the 1930's, and in the low rate of growth during the last two decades. The common characteristics are said to be structural. They are to be found in agricultural sector, where because of institutional reasons there is a large concentration of land ownerships (with the exception of Mexico, Cuba and Bolivia). The heavy regional dependence are only a few exports of primmary products which entail an unstable and sometimes stagnating foreign exchange revenue. The fact that a major proportion of investment depends on the import of capital goods; current manufacturing production, on the import of fuels, row materials, and intermediate goods; and, consumption relies on the import of foodstuffs (the size of the external sector might not be so important as the structure of exports and imports). The industrialization process which has resulted in relatively small and highly protective markets, with monopolistical tendencies and lack of competitiveness in external markets. Also, throughout Latin America, the distribution of income -be it by factor share, income group, or by regional within each country- is very enequal. This is explained through the concentration of land and mineral ownership; the peculiarities of the industrial and external sectors; the elastic supply of unskilled labour; the scarcity of professional and skilled workers which favour high incomes in small well-organized groups; a large rural population which lives of subsistence agriculture, since the concentration of land entails at the opposite extreme minifundia; and, the unsuccessful financial policies.

B. Two groups of countries

However, if it is justified to speak of Latin America as a whole, in so far as its growth problematic and its structural characteristics are alike, as we shall see, it may also be valid to stress differences between countries with respect to the disequilibria present in this growth process - or stagnation - and the different policy approaches adopted. This is specially true as reflected in the rate of inflation and the general instability of some countries in the region. On this basis a broad distinction can be established in Latin America:

a) One group of countries -in a historical sense - has suffered both internal and external disequilibria. It is composed by countries which, for reasons which will become obvious below, are arranged as follows:
   (1) Argentina, Brazil, Chile, Colombia, Peru, and Uruguay.
   (2) Mexico.
   (3) Bolivia and Paraguay.
   (4) Ecuador.

b) A second group of countries, in so far as relative external and internal stability, has maintained the opposite tendencies. They in turn may be superficially arranged as follows:
   (1) Venezuela.
   (2) Central America.
   (3) The Caribbean (including the Guianas).

Instability in the one group and relative stability in the other are further reflected in the use of different economic policies - orthodox and unorthodox - and their alternative objectives -general stability and induced growth - . Further, what is just as interesting, there seems to be a striking relationship between the process of industrialisation and inflation as such (except in Bolivia, Paraguay, and Ecuador). That is, industrialisation, which has been adopted as a means towards growth, has been accompanied by various degrees of chronic inflation in the semi-industrialised countries* (with the qualification that there has been three relatively non-industrialised countries with mild and almost hyper inflation). Hence this study will cover the first group of inflationary countries - and place emphasis on their industrialisation process - and will abstract from the second group where there has been relative price stability and a lesser industrialisation effort (again, in a historical sense).**

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*The point has been discussed by ECLA in The Economic Development of Latin America in the post-war period (12).

**The abstraction and the grouping, however, can be considered more analitical and empirical than theoretical. In Latin America the following idea is not uncommon: when and if the stable economies embark in a sustained process of industrialisation it may well happen that they develop similar desequilibria and policy dilemmas that the semi-industrialised have. The Venezuelan case, in the words of Mr. Felix illustrates the point: 'Venezuela with its prolonged oil boom is clearly a special case. turned somewhat sour, moreover, since 1958 when the oil boom slackened and

Thus the purpose of this section and the next is to explain and justify such an abstraction and the interest in industrialisation as a link with inflation. Economic indicators are important (See Table III and IV and Diagrams I to III); but it is also fundamental to understand, however superficially, the historical experience that underlines this simplistic classification.*

In general, the explanations of Latin-American inflation tend to go back to the times of the Great Depression when the distinction between the two groups of countries may start to become clear. This is, of course, a generalisation in time that does not account for the different industrialisation efforts that occured in each country. Nonetheless it is valid to argue, as Dr. Sunkel does (13), that with the 1929 Crisis the especialisation in primary exports and the traditional dependence on imports was badly shattered in Latin America. One group of less developed countries - for whatever reason one desires;—essentially Venezuela, Central America, and the Caribbean colonies and independent countries - accepted the shock and continued with their traditional pattern of economic growth and orthodox policies and waited until the international markets reassumed 'normal - ity'. Some of the other countries - Argentina, Brazil, Chile, and Uruguay -, where some pre-1929 start had been made in manufacturing, were too severly affected by the Depression - economically, socially, and politically - to impose a further downward adjustment process. 'Prior to 1930, writes D. Felix, when Latin-American countries were export economies par excellence, it is pointed out that the inflationary trends were milder. The crisis of the 1930's was more than an economic depression set off by a sharp drop in demand for Latin-American exports and worsened by unsuccessful attempts to service the heavy foreign debt... the crisis in the more advanced Latin-American countries was also a crisis of the political and social order. This was resolved, however, by a somewhat shaky compromise. Grudgingly, the 'oligarchy' made room for a more pluralistic political system in which the demands of the white collar and professional classes and the urban workers could find expression' (14).

Mexico is a somewhat different case since its Revolution (1910-1917) brought a change in the economic policies of the 1920's and in the export sector.** Thus the effects of the Depression were secondary to economic and social change imposed by the Revolution. Moreover, economic changes first appeared in the agricultural

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..domestic prices started rising (11). That is, Venezuela is a case of rapid growth and little inflation because of rising exports. When export revenue declined and Venezuela tried to compensate the decline in income by accelerating her import substitution process she found herself with rising prices; for the temporary period when this was true (see table III).

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*In this we shall follow ECLA and several authors, with special reference to professor Seers (see footnotes) (5).

**This point and several of its developments were suggested to me by Mr. N. Warman of the University of Glasgow.

TABLE 111

Cost of Living Index for Latin America

Country / Years	1937 = 100[a]						1958 = 100[b]										
1	1930	1934	1937	1938	1942	1945	1950	1957	1958	1959	1960	1961	1962	1963	1964	1965	196
Semi- Industrialized	109																
Argentina	109	.84	100	99	112	159	.24	48	100	214	272	309	395	491	600	771	101
Brazil	74	77	100	104	130[c]	472	26	50	100	137	185	256	390	684	1270	2050	300
Chile	61	80	100	104	173	244	7	23	100	139	155	167	190	274	400	512	63
Colombia	-	-	100	113	122	207	58	72	100	107	111	121	124	164	192	199	23
Peru	99	87	100	101	131	223	58	78	100	113	122	131	138	148	164	191	20
Uruguay	102	95	100	99	112	153	41	64	100	140	194	237	263	317	454	710	123
Mexico	-	74	100	114	140	308	52	70	100	102	108	109	110	111	114	118	12
Non-industrialized																	
Bolivia	-	-	100	131	351	533	1	9	100	120	134	144	152	151	167	172	18
Ecuador	-	-	100	166[d]	173	315	85	101	100	100	102	106	109	115	120	123	13
Paraguay	-	-	100	100[d]	144	236	12	54	100	110	119	141	143	146	148	154	15
11																	
Semi-stable																	
Venezuela	-	96	100	102	111	150	90	97	100	105	109	106	105	106	107	109	10
Cuba	-	-	100	100	132	213	92	97	100	-	-	-	-	-	-	-	
Costa Rica	-	94[e]	100	101	123	184	85	89	100	100	101	104	107	111	114	114	11
Dominican Republic	-	-	-	-	120	202	91	96	100	100	96	93	102	110	112	110	11
El Salvador	-	-	-	-	-	-	74	94	100	99	99	97	97	98	100	100	9
Guatemala	-	-	-	-	99	101	90	97	100	100	98	98	100	100	100	99	10
Haiti	-	-	-	-	-	-	90	93	100	100	95	91	94	93	97	106	11
Honduras	-	-	-	-	-	-	82	95	100	101	99	101	102	105	110	114	11
Nicaragua	-	-	-	-	-	-	61	90	100	97	95	95	96	96	100	103	10
Panama	-	-	-	-	153	175	96	101	100	100	100	101	102	103	105	105	10

Sources: a) United Nations Statistical Yearbook, 1950.
b) International Monetary Fund, International Financial Statistics, 1967.
c) base 1939 = 100
d) base 1938 = 100
e) 1936

TABLE II

Growth of Total and Per Capita GNP in Latin American Countries

(1945-50-1965)

Country	1945 -50	1950 -55	1955 -61	1962	1963	1964	1965
Latin America[a]	5.7	4.7	4.3	3.5	1.8	5.4	6.2
Argentina	5.0	2.0	1.9	-3.3	-5.2	8.2	7.8
Brazil	6.1	5.7..	6.1	5.3	1.6	1.4	3.8
Chile	2.8	3.1	3.7	6.5	1.7	4.4	4.1
Colombia	4.7	5.3	4.0	5.0	3.5	4.5	3.2
Peru	4.4	5.1	5.3	7.5	3.7	5.5	5.8
Uruguay		4.2	0.3	-2.2	-1.0	1.1	1.2
Bolivia	1.9	0.9	0.7	4.1	6.2	6.2	5.5
Ecuador	9.2	5.4	4.2	4.6	3.3	4.5	3.3
Mexico	6.3	6.7	5.4	5.0	6.3	10.0	5.4
Venezuela	10.6	8.7	5.7	6.3	5.9	7.6	6.2
Central America	5.8	4.6	4.1	6.3	5.7	6.7	6.8
		GNP PER CAPITA					
Latin America	3.2	2.0	1.4	0.7	-1.2	2.5	3.3
Argentina	2.8	-0.2	0.1	-5.0	-6.8	6.2	6.3
Brazil	3.4	2.6	3.0	2.4	-1.5	-1.5	0.7
Chile	1.0	0.9	1.2	4.1	0.8	2.1	1.7
Colombia	2.0	2.4	1.2	2.2	0.5	1.6	0
Peru	2.6	2.8	2.7	4.3	1.2	2.4	3.2
Uruguay			-0.9	-3.4	-2.2	-0.2	-0.3
Bolivia	-	-1.1	-1.6	1.9	3.8	3.7	3.2
Ecuador	6.2	2.5	1.1	2.1	-0.1	1.0	-0.1
Mexico	3.5	3.6	1.4	1.6	2.9	6.5	2.0
Venezuela	7.3	4.6	1.7	2.6	2.2	4.0	2.7
Central America	3.1	1.6	0.8	3.1	2.3	3.4	3.4

a) Except Cuba

b) Source: Economic Survey of Latin America, 1963-68, United Nations, New York.

sector through the 'Reform'; and it was until the late 1930's and more so during Second World War when import substitution industrialisation and inflation advanced (see Table III). Colombia also reacted to the depression with quite a lag, as compared with the southern countries. Import substitution, accompanied by an increase in the rate of inflation, becomes apparent in the late 1930's. With Peru, on the other hand, one cannot really speak of significant industrialisation until well into the 1940's. However, Peruvian authorities had departed from orthodox policies by 1940 and this was marked by severe inflation (see again Table III).

On any event, between 1930 and 1940, these Latin-American countries which today we call semi-industrialised began to isolate their economies through various protective devices (tariffs, devaluation, exchange controls, and other industrialisation incentives). Thus they responded to the decline in the export sector with measures that tried to maintain the level of income by deficit financing and measures to cope with unemployment, something that advanced countries were doing too. An import gap was created, but expected to close with the development of internal production, mainly manufacturing. But since the pre-crisis level of exports was not restored until after the war, while income levels were high and expanding and industry could not increase substantially in the short run, the adjustment between total demand and supply involved a strong rise in the price level but also a major change of relative prices in favour of manufactures. The industrial sector was receiving in this way further stimulus - in addition to protection - and proceeded with import substitution. Industrialisation then brought a new kind of dependence: certain types of intermediate and capital goods had to be imported to maintain the level of income*.

With respect to the second historical difference between semi-stable and inflationary countries - monetary and financial policies - there were important changes in the latter as far back as the XIX century. It is outside the scope of this work to go into the financial history of Latin America**, although some relevant comments should be made to support the classification following professor Seers. The point is, that even before the Great Depression, some of the selected Latin-American countries had begun to devalue and often to suspend convertibility into gold to alleviate slumps in their exports. National central banks were being formed and there were moves towards monetary independence in the authorities, but this was also accompanied by inflation. An example of this is Chile (a subject well discussed by professor Hirschman (16). Nonetheless, throughout the 1920's, Latin America was also trying to follow the European countries in re-establishing the gold standard and the international monetary system which had collapsed with First World War.

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*Industrialisation (MST) and inflation during the postwar are discussed in Part II, Chapter 3, Section (c).

**For an introduction into the subject, however indirect, see D. Joslin and F. Tamagna (15).

Observance of the rules of the gold standard meant that certain problems never arose. A shortage of foreign reserves could hardly occur, and any incipient price inflation could be stopped by a shortage of money before it could gather momentum. Among the virtues of the gold standard was that it achieved these ends almost automatically, and problems requiring political decision and administrative action were less acute; together with restricted import needs and expansive export markets. In one respect, though, most Latin American countries departed from the strict gold standard conventions: holdings of the currencies of industrial countries were treated as if they were gold. It was convenient to hold them and, since they were fully convertible into gold, this meant a departure from practices followed overseas.

Despite the moves towards financial independence, monetary systems were still hardly developed enough to give much scope for deliberate policy. Exchange controls and multiple rates were as yet unused. In any case, the material basis for a more active and independent policy hardly existed in most countries, at least in the short run, if the lackof local capacity for producing manufactures is taken into account. Monetary expansion would have led quickly to an increase in imports and an unacceptable loss of foreign reserves. But the almost complete absence of conscious economic strategy proved a serious handicap in the years that followed. Administrations were not gaining in experience and political leaders thought that economic development was, broadly speaking, outside their control and therefore not their responsability.

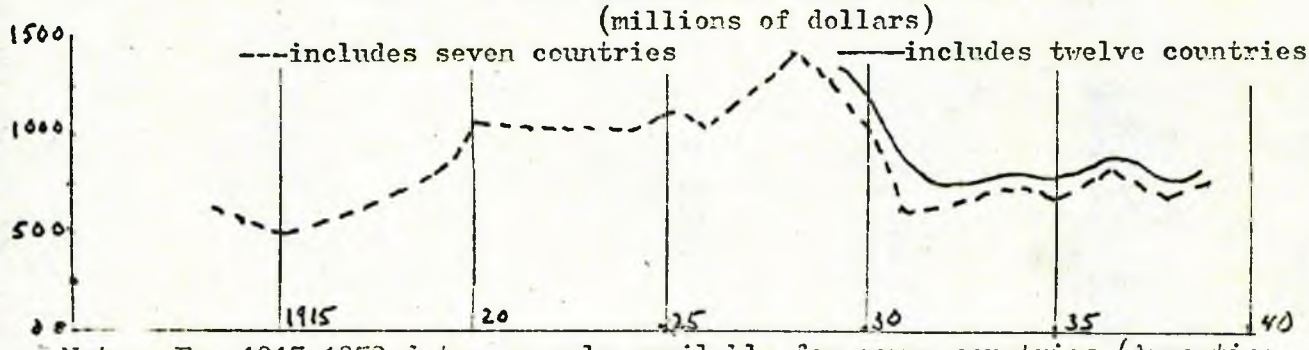
The larger economies with time might have had to abandon the rules of the gold standard, important as its advantages were and even if fluctuations in foreign trade had been avoided. These rules implied a great priority for balancing payments and domestic price stability. Income and employment could grow and recessions could be avoided only if export markets continued to expand; which in last resort meant a dependence on the growth of advanced countries, a rate which might prove to slow for a region with low per capita income and a fast rate of population growth. However, the question was never put to the test. The depression which started in 1929 was so harsh that even advanced countries discarded the gold standard. The leading industrial countries abandoned convertibility into gold one after another and devaluated their currencies. The abandonment of the gold standard was the necessary condition for anti-cyclical programs, such as public schemes.

The slump was particularly severe in Latin America. Public revenue depended largely on export taxes and investment from foreign sources was important. So that the decline in exports, which was much larger than in the industrial countries, meant a reduction in both.

At the same time, the foreign exchange shortage* was aggravated by the slow flow of short-term capital, which in some cases was turned into an out-flow. At the same time Latin America found it particularly difficult to cut the necessary imports. Governments revoked convertibility, not only into gold, but also into foreign currencies. Like many other countries, industrial or primary producer, thosein Latin America introduced import tariffs in an attempt to correct the deficit in foreign payments and increased duties on imports. Many of them also defaulted on foreign debts, as a number of European countries were doing.

Apart from these steps, one group of countries took additional measures whereas the remainder did not, and there has been a clear distinction between these groups ever since. A distinction on which, from the monetary point of view, we base our abstraction. The additional measures can be summed up as autonomous monetary expansion, autonomous in the sense that it was much greater than would have been justified by movements in reserves. Moreover, the monetary expansion - and inflation - occurred in those countries which had the largest industrial sectors - Argentina, Brazil, Chile, Colombia, Uruguay, and Mexico - and MST potentiality. These countries had the greates scope for action: they had industries which could supply at least some of the needs of the local consumer and absorb some of the unemployment. It must not be thought, however, that compensatory action was in all cases deliberately chosen as an economic strategy or that exchange controls were imposed to stop the consequent loss of reserves. The crisis developed so quickly that administrations had to improvise. The expansion of credit was decided on a few hours to save banks from closing; budget deficits appeared because of falling revenues. Each further movement broke away from the conventional standards, monetary and budgetary and domestic and foreign stability wise. Backing for the currency fell; further devaluations occurred not only in terms of the gold but of the American dollar; and, more controls were placed on purchases of foreign exchange.

Gold Reserves of Latin America*
(millions of dollars)



Note: For 1915-1939 data was only available for seven countries (Argentina, Bolivia, Brazil, Chile, Peru, Uruguay, and Venezuela). Five additional countries are included in the second curve covering 1929-39 (Colombia, Ecuador, El Salvador, Guatemala and Mexico).

Source (13)

Although there had been some diversification in the larger economies, as it was said, the Depression came to demonstrate how far this process would have to advance by reveling how much Latin America was dependant on import. Because of the shortage of foreign exchange the imports of Argentina, Brazil, and Mexico shrank by one half between 1929-32, and in Chile even more. The problem of maintaining the level of income, the standard of living, and employment was one of creating import substitution industries and public works. And, devaluation, and higher tariffs gave impetus to industrialisation and opened up new domestic markets. But, the serious obstacle was financing investment; foreign investment was small, private savings were on the decline, imports were expensive. Also, the labour force lacked skills, land owners were unwilling to modernise, there were few entrepreneurs. Thus, throughout the 1930's industrialisation increased the demand for domestic and foreign inputs, which because of devaluation were now dearer, as well as foodstuffs. Adequate infrastructure, like transport and energy, were greatly required. And, although industry grew in response to the protection stimuli, competition was imperfect and prices higher. The response in agriculture was even more inadequate and allowances for imports of capital goods and fuels had to be made. The result is that the demand for foreign exchange did not fall and the exchange rate was under constant pressure. By 1932 prices were rising in Brazil, Chile, and Mexico; Argentinian and Uruguayan took longer because exports could be diverted into the domestic market (see Table III). Also, Argentina had advanced further in her industrialisation and the substitution for imports involved a less radical departure from previous patterns of production. Moreover, both countries had basic social capital, labour was less immobile, and fiscal and monetary policy were managed in a way to offset the effects of fluctuations in foreign trade.

The inflationary industrialisation experience in this group of countries, is an interesting illustration of the relative significance of monetary and real factors. It is possible to attribute inflatinn to the easiness with which the authorities expanded the supply of money. If this monetary expansion had not occurred, prices and exchange rates would have changed little, as in Venezuela and the smaller Caribbean and Central American countries. But one must take account of the context of monetary policy. Faced with a catastrophic fall in exports, policies had to make choices between unpleasant alternatives. When revenue fell off, for example, Governments were presented with a dilemma. They could make drastic cuts in expenditure and face social implications (at a time when unemployment was high) or they could resort to deficit finance. Similarly, monetary authorities had to decide whether to expand credit, despite the fall in reserves, or shut-up banks. On the other hand, they had whether to promote import substitution or to face stagnation. In several of our economies they

chose rising prices and devaluation rather than falling income and unemployment. Of course, this is not to say that the strain on the balance of payments and price inflation would not have been less if policy had been carefully thought - something that judging from the chronic inflation Latin American policy has not been able to do yet.

Most of the remaining countries either refrained from an autonomous monetary and budgetary policy or from significant industrialisation. This is the case of Central America, the Caribbean, and Venezuela, which form the second group of countries (see Tables III and IV). For one thing in these countries urban proletariats were relatively very small. While the depression meant severe hardship, a great part of the population worked in subsistence sectors only remotely affected by fluctuations in the commercial part of the economy. The banking systems were, moreover, largely in foreign hands and there was opposition to measures which might lead to devaluation of the currency. In any event, the scope for expansionist policies was quite limited in small economies which, although very dependant on exports, could hardly launch an industrialisation effort, e.i. Central America.

Venezuela falls into this group too. It possessed in petroleum an export which has proved easy to market until quite recently and then only for a short period -, and earnings of foreign exchange have climbed up very rapidly. Even in the depression, the upward trend was halted rather than reversed. The need for compensatory policy did not therefore rise in the 1930's and the Venezuelan bolivar was so strong that it appreciated vis-à-vis the United States dollar*.

Three countries belonging to this non-industrialised group, however, did attempt unorthodox financial policies and in two cases prices rose sharply during the 1930's. Bolivia suffered from a severe decline in tin exports, which immediately unbalanced the budget, and on top of this came the Chaco war, fought in the midst of the Depression. The consequence could only be an unmanageable demand for imports, leading to successive devaluations and internal price increases (see again Table III and Table VII). Paraguay, Bolivia's protagonist in the war, although it financed its military expenditure in more orthodox terms, also started to suffer one of the worst Latin American inflations. In Ecuador, also, monetary expansion led to steep price rises, without alleviating internal conditions appreciably. Structuralist and in size these countries belong with the Central America-Caribbean group, but precisely because they lacked the initial industrial potentiality of the more advanced countries they experienced particularly violent bouts of inflation. Because of this they have been included in the

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*The criteria followed by the Economic Commission for Latin America is similar (17). It is this unmatched favourable situation in the external sector which largely explains how Venezuela has been able to avoid inflation. It has been possible, via imports to bridge gaps and avoid bottlenecks to the extent few other countries could hope for. Government receipts from the external sector have been large, so that expenditure could be expanded without the same pressure on the financial structure.

study as a special sub-class which shall be included with the first group (see Tables III and IV).

Summarising, the countries of the region can be divided into two groups: the first includes those ten economies that have followed unorthodox financial policies, experienced chronic price inflation, and a series of devaluations. Seven of these are today the most industrialised economies of the region; the other three, although much closer to the second group in structural characteristics, also have suffered violent inflations. The second group is composed of Venezuela, Central America and the Caribbean economies*; those countries which after the depression maintained their parity with the US dollar - they are in fact now on a dollar standard - and continued to practice orthodox financial policies. These countries experienced only moderate price rises over the three past decades; they are mostly unindustrialised and relatively more dependant on foreign trade; and their economic structure tended to be preserved by reciprocal trade agreements with the United States, which offered special marketing advantages in return for restricting protection towards local industries and trade from other countries.

This classification criteria is frequently present in works about the financial problems of Latin America. ECLA writes: "Excluding ... Venezuela, the countries with relative price stability are the smaller countries where the export sector is predominant; where industry is considerably less important; and, in general, where the urban population is smaller. Thus the pressures associated with industrialisation and urbanisation have been less intense, and exports have expanded at a relatively favourable rate... Monetary policy... has followed orthodox lines and currencies have maintained their value in relation to the dollar (18)". Professor Seers has also divided Latin American economies in similar groups (19). "All these countries - he explains refering to Venezuela, Cuba, Ecuador, and the Central American Republics - have maintained from 1929-60 a dollar exchange standard, with high dollar backing and little exchange control" Moreover, he goes on to say, that the growth rate has been connected to export performance; the import coefficient shows a gradual upward tendency; the government made only sparing use of protection; inflation appears to have been moderate during the last three decades**; and most members had in 1958 the same exchange rate vis-à-vis the USA dollar as in 1929. These countries were politically more able to face stagnation or a decline in domestic income, when exports stagnated or declined. Profits of foreign companies in the export trade absorbed a high proportion of export fluctuation; a big fraction of the labour force is in the subsistence sector, and the working clases have little political

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*For the pre-war period Nicaragua is an exception because of its considerable inflation and after the 1958 revolution Cuba becomes a case all its own.

**Except for Ecuador.

power."However, there are also indications that political tensions can arise in primary-producing countries which achieve monetary stability by monetary restrictions and by neglecting industrialisation" (in Cuba there was stagnation followed by a revolution and in Venezuela, when the petroleum boom subsided for a period, there was unemployment, a rise in expenditure, devaluation despite big foreign loans, import controls, and higher tariffs, and rising prices). "Mexico and the rest of South America show a greater variety of experience. They have experienced higher rates of growth than in exports. They have all experienced moderate-to-fast inflation, which continued - or accelerated - when export markets weakened in the 1950's. They have also had more incentive to stimulate growth, because of large working-urban classes which need employment; but these economies also enjoy greater physical possibilities for compensatory finance, having large manufacturing sectors already by the 1920's and possessing markets large enough to permit considerable industrialisation" (this last statement, as it will be seen, is of course open to much debate).

Resuming, in simple terms the difference between inflationary and semi-stable countries, with respect to the cost of living* and in a historical context, may be seen in Table III. Where data is available, inflation appears to be persistent and severe in the selected countries from 1930 to 1966. In the pre-war period this is true for all these countries, excepting Argentina and Uruguay where export production was diverted into the domestic market, something that was less possible in the rest of the countries. Mexico is also a partial exception, in so far as from the 1960's she has moved towards stability. On the other hand, in the semi-stable countries where data are available- Venezuela, Cuba, and Costa Rica - inflation was well under control in the pre and post-war periods. This is true for all semi-stable countries in the post-war period. In both groups of countries, however, inflation accelerated during the II World War. Still, inflation was severer and permanent in the selected countries. The long run tendencies and the difference between the two groups may be further seen in Diagrams I and II (1920-1959) and Diagram III (1958-1966). Moreover, they provide a comparison with stable advanced - countries, the United States and the United Kingdom.

C - Inflation and industrialisation

It is important to illustrate the relationship between the process of inflation and industrialisation, which has been discussed in a historical context. Concentrating on the post-war period, Table IV has three simple indicators of the increasing importance of industrialisation in the inflationary countries, over and above what is happening in the semi-stable ones. First, it may be seen that manufacturing as a % of GDP represents in all the inflationary countries a much higher figure than in the semi-stable ones. Moreover, the relative importance of industry has been increasing rapidly in the latter. Second, urban population - which

*It should be stressed, following Professor Mikesell, that not only are the price

represents to an important extent the industrial labour force - has been a significantly greater percentage of the total in the inflationary countries, except in Venezuela and Cuba. And, third, in these countries the export coefficient is relatively smaller in all cases and has either tended to decline or stagnate. While in the semi-stable countries exports as a % GDP are much more high in all the cases and have tended to increase their relative importance. This may be taken as an indirect indicator of the importance of the domestic sector - i.e. industrialisation** - as against the export sector, which as we shall see is composed mainly of primary products. The fact seems to be accompanied by inflation.

Further proof of the relation between inflation and the industrialisation process can be seen in the following sample taken by ECLA. Of course, today most countries in Latin America have started some sort of industrialization; but the ones that have advanced mostly are the inflationary ones.

TABLE V

Manufacturing Sector (1960) (% of Gross Value of Production)	Countries		
	Group 1	Group 2	Group 3
Food, beverages and tobacco	27.0	31.7	57.3
Textiles, footwear and clothing	15.0	19.0	17.0
Wood products	3.4	3.2	5.0
Leather	1.6	1.3	1.3
Paper and paper products	2.7	2.0	2.9
Printing and allied industries	2.2	2.4	1.9
Rubber and rubber products	1.9	1.9	0.8
Chemicals and petroleum products	14.3	15.8	6.8
Non-metallic products	3.7	3.6	3.8
Metallurgy	25.0	13.6	3.8
Miscellaneous	3.2	4.6	1.6

Source: ECLA, The Process of Industrial Development in Latin America (20)

The first group is formed by Argentina, Brazil, and Mexico and the second by Chile, Colombia, Peru, and Uruguay, all inflationary countries; and, the third by Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and the Dominican Republic, all semi-stable countries. It is clear that the first two groups have

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** The relative decline in the importance of agriculture in these countries may be seen in Part II, Chapter 3, Section (A).

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* data less reliable and based on a smaller sample in Latin America than in industrialised countries, but they are usually confined to market prices in the large urban centres, say Buenos Aires, Mexico City or Santiago. Moreover, to the extent that they are dual economies, a percentage of the population and production escapes the monetary market (20)

TABLE 1V

Indicators of Industrialization (1950-65) and the Inflationary Rate (1948-66)[a]

Countries	Rate of Inflation[b]	Manufactures as % of GDP				Urban pop. as % of Total			Exports as % of GDP		
		1950	1955	1960	1965	1950[c]	1960[d]	1965[d]	1950	1955	1966
I Inflationary semi-industrialized											
Argentina	21.4	28.6	29.7	31.4	33.2	37	63	72	9	9	11
Brazil	24.0	16.5	18.9	23.4	23.4	13	39	48	12	7	9(k
Chile	22.6	19.0	20.6[h]	19.3	19.8	29	63	68	11	12	13
Colombia	8.4	16.0	16.0	17.9	19.2	15	46	53	14	15	13
Peru	7.8	15.6	17.6	18.8	18.7	8	36	47	16	24	18
Uruguay	17.4	17.8	22.0	23.1	23.0	33	71	72	18	14	13(k
Mexico	5.3	23.0	24.0[i]	26.0	29.0[j]	15	54	55	14[l]	11	10
Non-industrialized											
Bolivia	12.7[e]	-	-13.0	-	12.0	11	30	35	18	16	21(k
Paraguay	14.6[f]	18.5	16.9	15.9	16.0	15	35	36	9	18	21(k
Ecuador	2.1	14.0	-16.0	-	17.0	15	34	36	13	18	17
II Semi-stable											
Venezuela	1.4[g]	8	-10	-	11.0	17	62	67	35	34	32
Cuba	0.9	-	-	-	-	22	55	-	32	19	17(k
Costa Rica	2.5	-	-	-	-	18	38	34	17	21	25(k
Dominican Rep.	0.5	-	-	-	-	9	30	33	26	24	19
El Salvador	2.2	12	-14	-	15.0	9	33	39	20	23	26
Guatemala	1.3	-	-	-	15.0	10	31	34	18	13	16
Haiti	0.8	-			-	4	13	16	15	-	-
Honduras	0.7	9	-12	-	8.0	-	22	23	24	18	26
Nicaragua	3.6	-	-12	-	13.0	10	34	42	18	-	30
Panama	nil	11	-11	-	15.0	16	41	43	34(l	31	37

a) Sources: 1. For industrialization data, Economic survey of Latin America, 1963-68.
2. For export data, The Economic development of L.A, in the Post-War Period (op-cit)
3. For population data, Demographic aspects of urbanization, Pop. Branch, UN, NY, 1968.
4. For inflation data, International Financial statistics, IMF.

b) Estimated compounded continuously rate of growth of cost of living index.

c) The percentage refers to city population, defined as the population in urban centres of more than 100 thousand.

d) Urban popul tion is equal to the people living in localities with more than 2000 inhabitants.

e) 1951-1966.

f) Ecuador has been included with the inflationary economics in spite of its low average rate of price increases because when the trend is divided into periods (i.e.1948-1958 and 1958-1966) the rate of inflation increases from below 1% per annum to over 3%. Moreover the expensive nature of Ecuador's financial policies make of it an interesting case within the context of this work.

g) 1950-1958. h) 1956. i) 1953. j) includes petroleum. k) 1964. l) goods and services.

advanced more in the industrialisation process, i.e. Metallurgy, chemicals and petroleum products. While the stable and small economies are still concentrated on the production of primer consumer goods, ie. food processing, beverages, tobacco products, textiles, etc.

The object of the classification has been firstly to start with a universe and describe the broad generalities of Latin America's growth and inflation; and secondly to enable us to abstract from the semi-stable economies. The study shall concentrate therefore on the inflationary economies and on their parallel industrialisation process; first in terms of the Monetarist-Structuralist controversy, and later on economic policy thought and on three case studies of stabilisation policies. Before going into the subject, however, it is convenient to give some further details on the degree of general instability in these ten countries.

CHAPTER 4

The Extention of Price Instability (1946-1965)

To measure and to evaluate the degree of inflation that the selected Latin American economies have suffered, as it was said, it is convenient to start from its most noticeable roots during the Great Crisis and in the subsequent period that culminated with World War II (21). However, the scope of this work is limited to the two decades which form the postwar period; alibi to some extemporaneous comments on previous experiences.

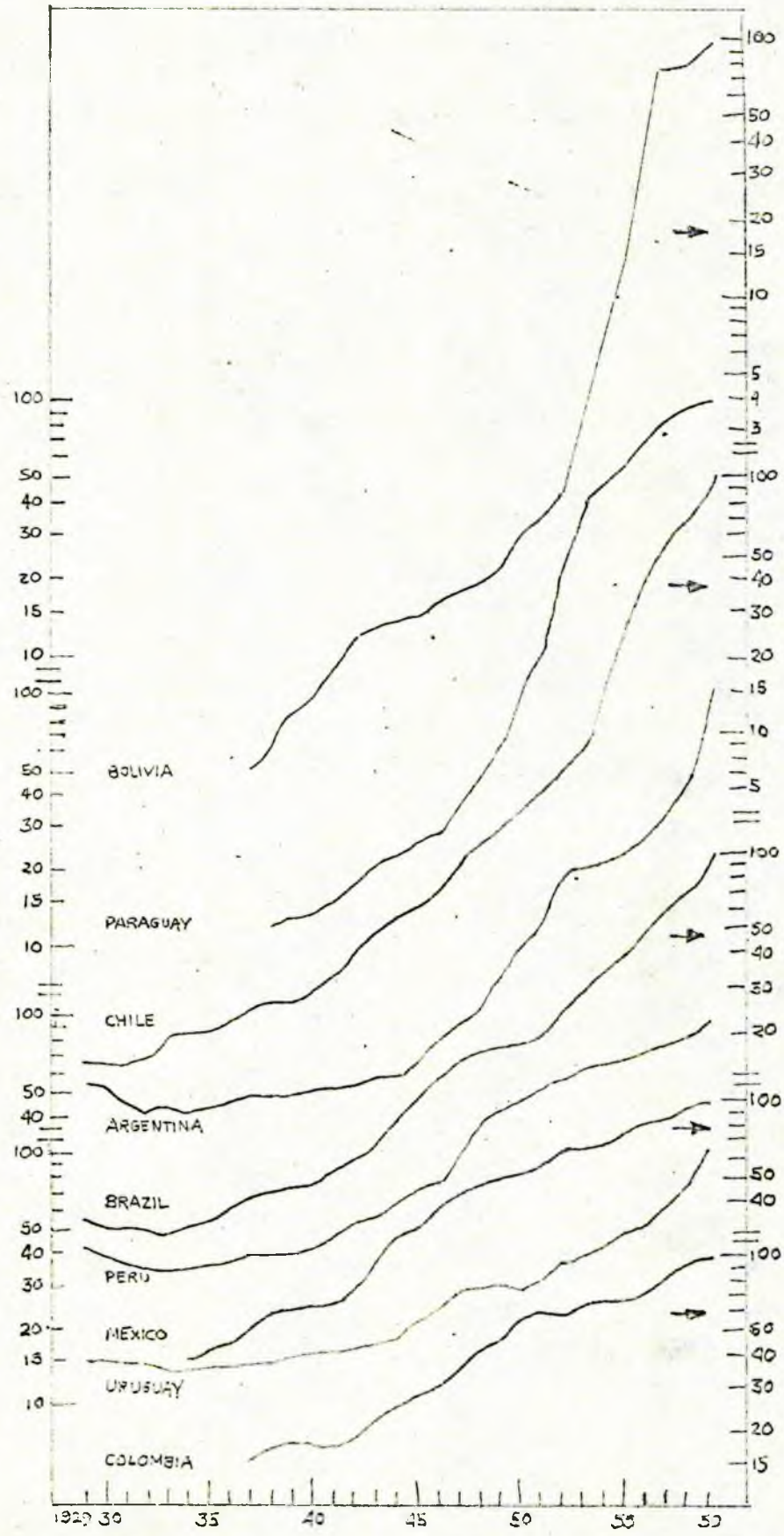
It has been agreed, moreover, that generalisations are valid when refering to Latin America. ECLA states: 'Each country has experienced its own brand of inflation and has applied its own medicine, and only detailed individual studies can explain these differing experiences. Nevertheless, at a rather general level there are characteristics which have been common to most of these countries... That is, to explain why price increases have been so easily touched off and, once begun, why prices have tended to spiral and have proved so difficult to bring under control' (22). But, even if this statement may be put into question, it is incontrovertible fact that the ten countries have suffered violent and chronic inflation. Nonetheless, the degree of price increases that constitutes 'inflation' does not provide a simple case. It has been rightly argued, especially referring to the relation between inflation and growth, that a mere percentage, say 7%, cannot be taken as a dividing line between price stability and instability. Any figure will always prove subjective and reduced to the specific national case. With reference to the controversy, the Brazilian economist Mario Simonsen writes: "One can be a structuralist at 5% a year inflation rate and a monetarist when prices increase at 50%... there is a sharper difference between a 5% and a 50% a year price rise than between a 5% year rise and stability' (23), that difference between stability and absolute disequilibrium. Any chosen figure tends to vary from country to country - in the words of the Chilean economist Carlos Massard: 'There is a question of magnitude. What rate of inflation can be accepted?..Chilean experience indicates that a rate of increase in prices of 10 to 15% per year does not worry anybody' (24). But, again the above figure may only be say, 7% for Mexico. Still, some economists specialised on the region tend to admit that any recurrent rise above 9% constitutes serious instability. Professor Mikesell writes the following: 'I shall regard an annual rate of increase of less than 5% in the cost of living index as constituting relative stability for Latin America; a rate of increase of 5 to 10% as constituting moderate inflation; and any rate above 10% per annum over a period of several years as indicating substantial inflation' (25).

For the purpose of this work the above criteria shall be adopted with an important qualification. The annual rate of inflation is really significant within the context of a national economy, as suggested by Mr. N. Warman; so that any comparisons between different countries have to be of a more qualitative nature. For example, if in country X prices have been increasing at 18% on average for several years and in the next they increase to 22% this may not constitute a noticeable turn into a more severe inflation; while, if in country Y prices have been moving at 5% and suddenly the rate increases to 9%, this may be an indication of acute instability. Thus, this study will analise instability as measured in annual price changes within a country and comparisons between countries will be qualitative minded.

A. Domestic Indicators

Despite the differences in criteria, though, it is obvious that the ten Latin American countries, except for some temporal respites, present with various degrees severe inflationary processes (see again Table III and Diagrams I and II). The process can be traced back to the early 1930's, when the data is available; during I World War all of Latin America was highly inflationary; and, during our post-war period the tendency continued or accelerated, with some modifications only in the selected countries. During the last two decades inflation, as measures through the cost of living index, has accelerated in Brazil and Uruguay and proceeded at very high rates, except for short periods, in Argentina, Chile, Colombia, and Peru (see table number III). On the other hand, Bolivia and Paraguay, the most inflationary countries in the pre-war period, have tended to reduce the rate of inflation. Something that becomes noticeably in the early 1960's although the rate of inflation for the whole post-war period is more than considerable for both countries (at least 30% per annum for Paraguay and more than 40% for Bolivia). The two exceptions to the rule are Mexico and Ecuador. Mexico a tourism exporter, since the early 1960's has moved towards a relative degree of price stability. For this reason, Mexico, considered a semi-industrialised economy, has been signaled out in the analysis. These differences, of course, have to be studied in terms of the causes of inflation and the policies applied; but for the time being, the contention is only to describe the magnitude of the general and obvious problem. Ecuador, on the other hand, is a rich exporter of bananas that has managed successfully to control its internal prices, although these have been sometimes above 5%. What interests us here is that by the 1960's it has tended to become more inflationary and its experience with an expansive public sector.

Diagram 1
Cost of Living Index
(1954 = 100)



Semilogarithmic scale

Diagram II

Cost of Living Index

(1959 = 100)

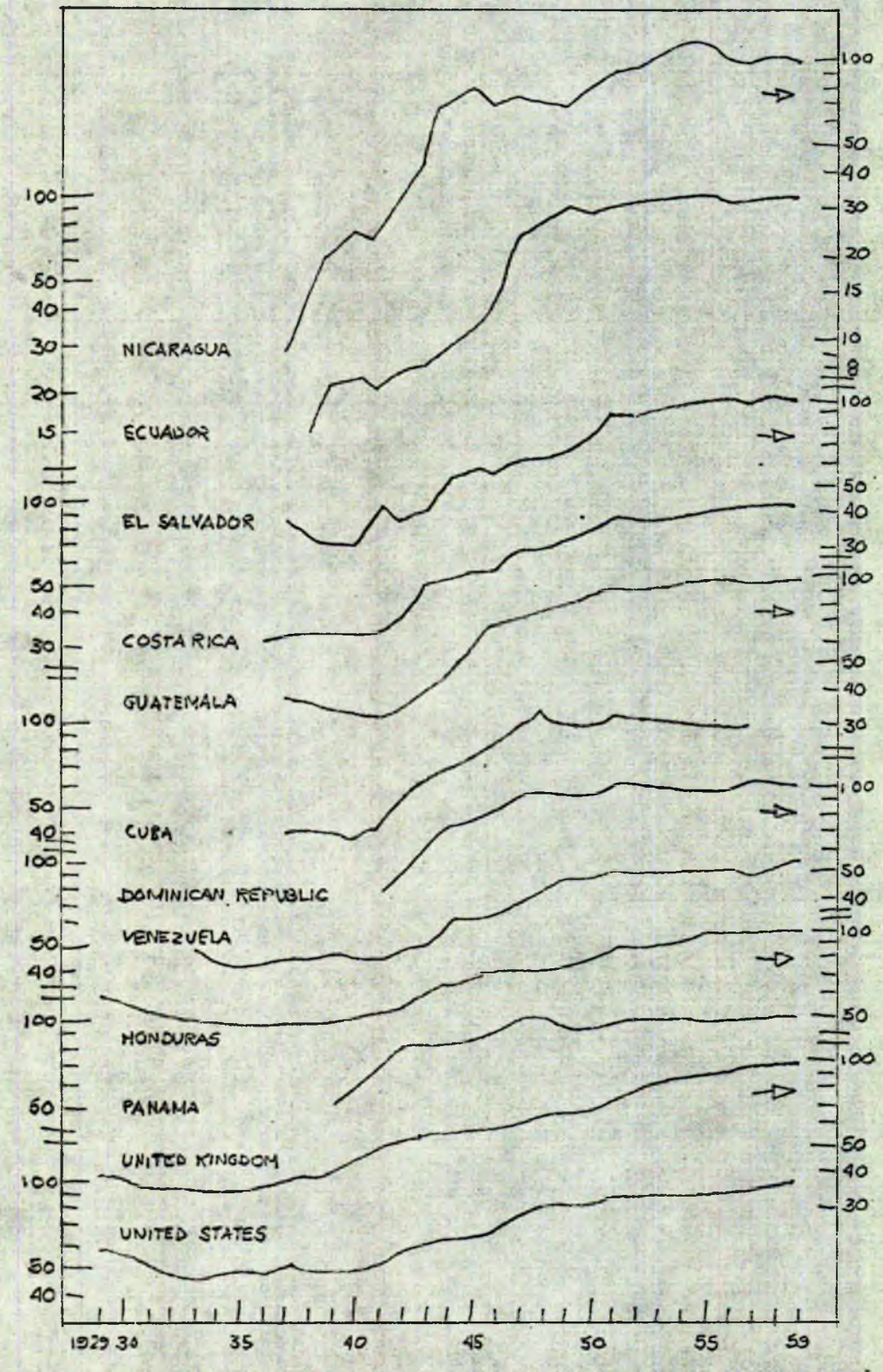
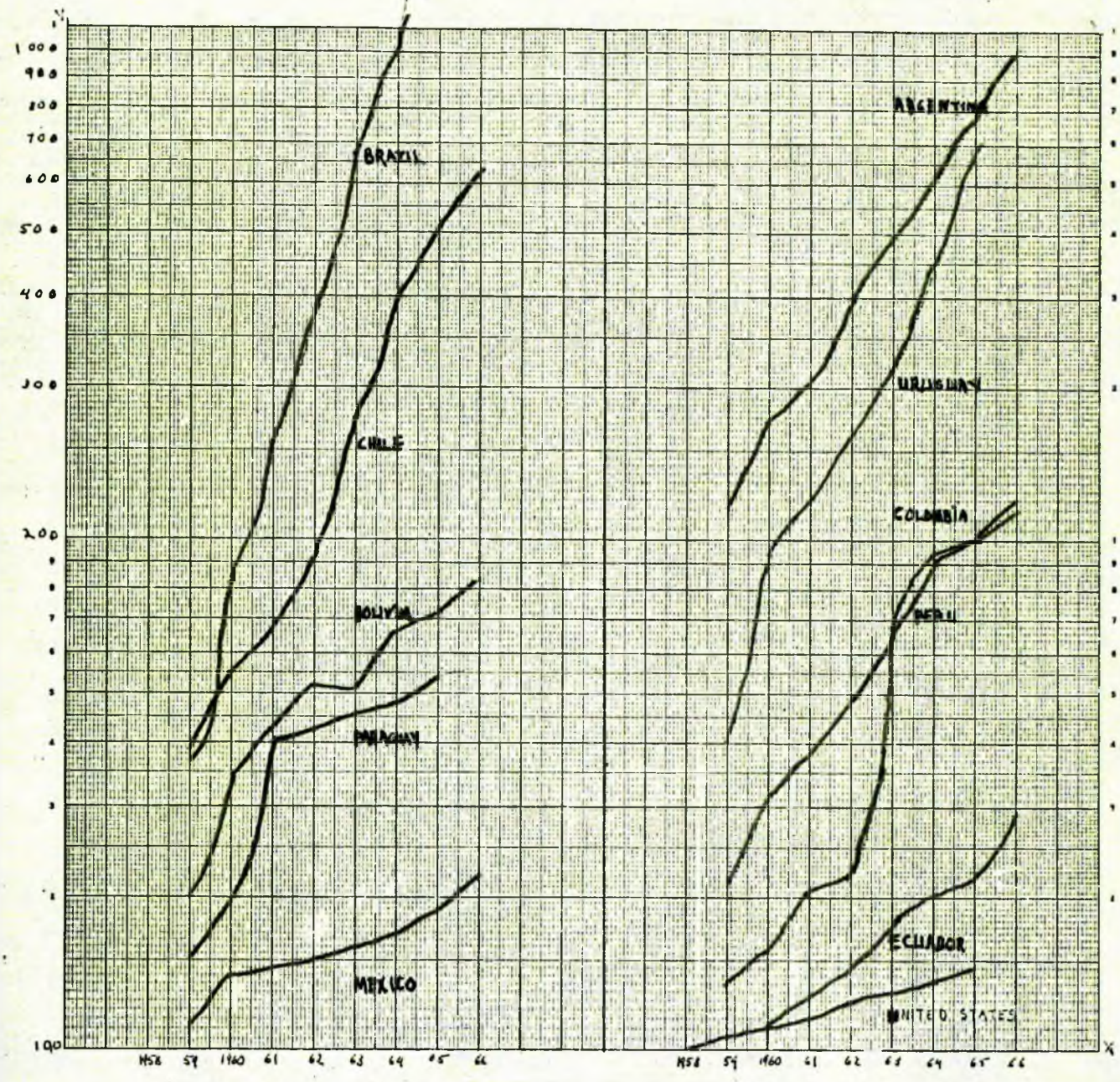


Diagram III
Cost of Living Index
(1958 = 100)



Where data are available, the general wholesale price index reflects the same tendencies (see Table VI). This index and its component sub-indices refer to a representative list of commodities priced at the wholesale stage of distribution. They may also represent the prices charged by representative manufacturers or producers to wholesalers, the price charged by wholesalers to retailers, the prices paid by importers to producers, etc. In general these prices tended to increase slightly less than consumer prices, although they were considerably higher in Argentina and Paraguay*.

B. External Indicators

The magnitude of inflation reflected on price indices tells only one aspect of price problems. The financial and economic disequilibria it produces are also shown in the external sector situation and its impact on the monetary system. A measure of inflation and of its consequences on the external and internal sectors, however, indirect, is given by the rate of exchange (See Table VII). The impact of devaluation on the price level and on the balance of payments is a controversial subject of which something will be said later. But, it is also true, that it points out to the degree of price instability a country may suffer. The recurrency and sharpness of devaluations in Latin America give thus a good idea of the magnitude of the problem. It is significant to see how between 1929 and 1967 the rate of exchange of the cruzeiro has gone from 9 to 2745 per dollar; of the Chilean peso from 8 to 600; of the Argentine peso from 2 to 350; of the boliviano from 3 to 1180; of the guarani from 4 to 126. All of our ten countries show recurrent devaluations during the post-war, as in general the second group of countries have maintained something closer to exchange rate stability (See examples in Table VII). By the early 1960's, however, both Mexico and the non-industrialised economies - Bolivia, Ecuador, and Paraguay - have maintained almost the same parity rate, a fact that corresponds to their relative price stability of the present.

It would appear that the rate of exchange instability - and the inflationary problem it precludes - should be reflected on the international liquidity position of our economies**. While this is true, several factors prevent a clear correlation between the process of inflation and the external financial position. Devaluations themselves place difficulties in evaluating, both in

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** For a superficial description of long-run tendencies in the international liquidity position of Latin America see the work of the Centro de Estudios Monetarios de America Latina (26) and ECLA (27).

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* This is generally a consequence of internal movements in the terms of trade; i.e. from agriculture to industry.

TABLE V1

General Wholesale Price Index[a)]
(1958=100)

Country	1948	1950	1952	1954	1956	1958	1960	1962	1964	1965
Argentina	-	-	-	-	61	100	269	381	619	768
Brazil	25	27	36	53	76	100	188	396	1270	1940
Chile	5	7	11	22	61	100	150	166	370	493
Colombia[b)]	43	52	55	63	69	100	114	125	185	201
Peru	-	-	-	-	74	100	145	-	147	-
Uruguay	-	-	-	-	-	-	-	-	-	-
Mexico[b)]	45	56	72	77	92	100	106	109	114	116
Bolivia	-	-	-	-	-	-	-	-	-	-
Ecuador[b)]	-	-	97	99	97	100	97	104	110	112
Paraguay	5	7	24	49	76	100	133	157	167	-
SemiStable Country Examp.										
Venezuela	93	92	97	97	98	100	103	104	109	112
El Salvador	72	99	100	128	110	100	97	91	99	97
Guatemala	88	94	98	103	100	100	99	100	103	101

a) Source: International Monetary Fund, International Financial Statistics

b) Price of home and import goods.

TABLE V11

Rate of Exchange[a)]
(domestic currency per dolar)

Country	Currency	1929	1940	1945	1951	1960	1963	1965	1967
Argentina	peso	2	4	5	14	83	132	189	350
Brazil b)	cruzeiro	9	20	20	20	200	620	2220	2715
Chile b)	peso and esuedo	8	34	32	93	1053	3.04	4.22	6
Colombia b)	peso	1	2	2	3	7	10	18	
Peru	sol	2	7	7	15	26.7	26.8	26.8	38
Uruguay	peso	1	3	2	2	11	16	60	
Mexico	peso	2	5	5	9	12.5	12.5	12.5	12.5
Bolivia	bolivianos and pesos	3	61	64	247	11885	11.88	11.88	11.88
Ecuador b)	sucre	5	15	14	17	17.5	18.5	18.5	20
Paraguay	guarani	-	4	3	32	126	126	126	126
Stable country example									
Venezuela	bolivar	5	3	3	3	3	3	4.4	4.5
Guatemala	guetzal	1	1	1	1	1	1	1	1

Source: International Monetary Fund, International Financial statistics.

a) Free market rate, where applicable and available. The table is only designed to give the general movement in exchange rates. For details refer to source and following note.

b) Before 1960 there were multiple rates in most of these countries. There were exchange rates for several categories: principal export rate (ie. coffee, petroleum), "other" export rates, principal import rates, "other" import rates, official rate, principal selling rates, etc. Exceptions after the above date are:

		1960	1963	1965
BRAZIL	Coffee export rate	90	314	387
	Free rate	205	620	2200
CHILE	Official rate	-	2.15	3.47
	Free rate	1053	3.04	4.22
COLOMBIA	Coffee export rate	5	7	8.5
	Other export rate	7	9.9	13.5
	Principal selling rate	6.7	9	13.5
	Free rate	7.2	19.9	18.3
ECUADOR	Official rate	15	18	18.2
	Free rate	17	22	18.5

domestic and foreign currencies, the foreign assets of an economy; many other factors influence the internal liquidity position as reflected in the balance of payments in a given moment (short-term fluctuations in the prices and volume of international trade, the weight of occasional foreign credits, sudden repatriations of foreign capital, accumulated repayments of foreign debt, etc). Thus the international liquidity position of Latin America definitely reflects external desequilibrium, but not a simple correlation between devaluations, foreign assets and inflation. (See Part II, Chapter C, section (b)). At best, the figures show an erratic fluctuating tendency, in some cases of a downward nature (see Table VIII). Abstracting from 1965, which was a good year for the ten countries, only Argentina shows a shapr downward tendency in her liquidity position, culminating with years of negative figures. The other very inflationary countries - Brazil, Chile, Uruguay, and Bolivia - only show violent ups and downs in their foreign assets. There is a group of countries - Mexico, Ecuador, Peru, Colombia, and Paraguay - which, although at a low level, have tended to improve their holdings of central banks's foreign assets. In contrast, however, the international liquidity of semi-stable countries like Venezuela and El Salvador has moved much more noteceably.

Still, if the external desequilibrium position in itself and with relation to domestic inflation is not that clear, there is a further indicator which leaves no doubt about the relation: the coverage position of local currencies with foreign assets, gold and dollars (See Table IX). The indicator shows the relationship between the internal monetary instability and the balance of payments position, and thus serves as an indirect measure of the degree of domestic monetary instability. Except for Peru*, which has maintained a semistable ratio, all the other nine countries have suffered - or inflicted upon themselves? - a declining ratio between their money supply and their stock of foreign assets, the consequences of which have to be studied. Moreover, all these countries have a peak ratio in 1945 which declines with various speeds throughout the past two decades and which illustrates the internal monetary desequilibrium. The extreme cases are those of Argentina and Brazil where the coverage becomes either negative or negligible. All the countries, including Peru, reached minimum ratios by the late 1950's or very early 1960's and have remained there or only improved slightly. Hence the problem of financial instability and inflation extends to the entire period. The long-run tendency seems to be more stable, although the foreign-assets backing ratio is small, in those countries like Mexico and Ecuador where the inflationary processes have been reduced. The same applies to Peru, which, nonetheless, has had recurrent inflation.

*Peru, however, is not an exception during its severe internal and external desequilibrium of 1957-1959 (see case studies).

TABLE V111

International Liquidity of Latin America[a)]
(as measured by Central Bank of foreign assets)
(millions in national currency)

Country	1945	1948	1950	1952	1954	1956	1958	1960	1962	1964	1965
Argentina (thousands of millions)	5.69	2.42	2.69	.51	2.67	1.78	-5.50	13.30	-22.56	-3.18	19.91
Brazil (" " ")	13	15	13	10	9	12	8	7	9	3	6
Chile	-	-	-	-	-	15	4	108	45	-33	130
Colombia	310	187	220	326	477	298	351	446	120	364	633
Peru (thousands of millions)	1.67	.23	.55	.66	.79	1.03	.10	2.01	3.10	4.09	4.45
Uruguay	382	331	-	369	407	387	227	1002	370	-275	2893
Mexico (thousands of millions)	1.55	.54	2.57	2.43	2.62	6.40	4.93	5.47	5.25	7.29	6.68
Bolivia	-	-	1.9	1.1	2.1	-14.9	6.3	40.8	7.2	216.3	432
Ecuador	445	392	579	671	596	513	567	611	632	929	719
Paraguay	32	29	39	46	100	410	406	-174	260	719	13.81
Semi-Stable country example											
Venezuela	596	1197	1155	1357	1477	2021	3257	1903	1811	3082	3106
El Salvador	70	83	104	111	112	92	99	62	69	137	144

a) Source: International Monetary Statistics International Monetary Fund.

TABLE 1X

Backing for Currencies[a]
(Central Bank foreign assets as % of the supply of money)

Country	1945[b]	1948	1950	1952	1954	1956	1958	1960	1962	1964	1965
Argentina	220	16	11	2	5	2	-4	6	-9	-1	3
Brazil	89	31	16	10	6	6	2	1	negl.	negl.	negl
Chile	55	-	-	-	-	12	2	28	8	-3	7
Columbia	142	24	22	25	25	13	11	11	2	5	7
Peru	35	14	28	24	23	24	2	30	38	38	40
Uruguay	261	75	-	58	53	43	18	42	13	-5	26
Mexico	95	13	41	33	29	53	36	31	25	25	22
Bolivia	98	-	38	23	8	-7	2	1	1	33	42
Ecuador	139	60	63	64	46	37	40	35	31	37	23
Paraguay	133	-	-	7	9	21	17	-6	8	16	28
Semi-stable Country Example											
Venezuela	84	80	67	71	70	106	81	53	50	70	63
El Salvador	147	-	80	65	58	40	41	31	33	55	57

a) Source: Net foreign assets of the Central Bank as shown in the"Monetary survey" of International Financial Statistics (IMF)

b) Gross foreign assets of Central Bank and currency in circulation.

C.- The rate of inflation and growth

The above exercise has only proved that inflation in Latin America is more than considerable - although hyper-inflation has not prevailed*, - and has described to an extent the magnitude of the problem, with reference to price and financial indicators. The theoretical and pragmatic problem of Latin America is not really stated in these terms. The core of the matter lies in the interconnected problematics of growth and inflation. This is the origin of the Monetarist-Structuralist controversy which will be analysed below. That there is a relationship, whether positive or negative, between the two phenomena is almost obvious. But its nature and complexities are such that no simple definition will do. One cannot establish at this stage of work any correlation because it would be common place and ineffectual. The explanation usually goes: Brazil has had a high rate of growth and severe inflation; Peru's growth is just as high but its inflation milder; while, Argentina, Chile, and Uruguay are stagnant and very inflationary; Mexico and Colombia have had mild growth and inflation, and so on. There seems to be, nevertheless, a guideline to approach the subject. On one extreme growth can be made a function of inflation or, on the other, inflation can be made a function of growth. In the frist case inflation is made an independent variable and the shortcomings on the growth process are blamed on it - the influence of inflation on savings and investment, on international trade, on foreign capital and so on. This approach would merely consider inflation a handicap. A good example of this technique is on G.S. Dorrance's work (29). The alternative, as one of the dependent factors of the growth variable, has also been tried. In this second case advances made in - the rate of growth are interpreted by the positive, neutral, or inevitable rate of inflation, among other factors. Such a technique would,then not refer to inflation as a clearly negative factor. An extreme example of it, is on several of the works of W. Baer and I. Kerstenetzki on the Brazilian case (30). (There are, of course, many intermediate positions). Both of these types of studies, although highly quantitatively minded, arrive at opposite results. Moreover, implicitly value judgments tend to appear and policy recommendations - in terms of objectives, measures, priorities, and compatibility - become obscure and antagonistic. Here the nature of the problem is not only Latin AMerican but global and close to the theoretical findings in advanced countries. The only lesson that can be obtained from these alternative approaches is that it will not do to start from the end - that is, trying to establish a correlation between growth and inflation as such -, but that its necessary to analyse from the 'be-

* Except, perhaps, in Bolivia during 1952-1957 (for an introduction into the subject, see C.H. Sondag (28).

ginning' the causes of Latin American inflation and its cures in terms of certain growth criteria - a simple observation of savings and investment - and work upwards from this to a comprehensive integration of the phenomena**. Presumably this is what the Monetarist-Structuralist controversy is about. Stated in these terms the problematic becomes of such a magnitude that it clearly lies outside the scope of this paper. One may, however, adopt this principle as a guideline when analysing the nature of inflation in Latin America. That trying to establish a simple relationship between the rates of inflation and growth may prove frustrating or, worse still, somewhat irrelevant may be seen in the following table:

TABLE X

Average annual Rates of Gorwth of GDP per capita and Prices (1950-1965)

Country	GDP per capita	Banking	Inflation	Banking
Argentina	1.1	(8)	21.4	(7)
Brazil	2.7	(2)	24.0	(9)
Chile	1.4	(6)	22.6	(8)
Colombia	2.0	(4)	8.4	(4)
Peru	2.4	(3)	7.8	(3)
Uruguay	0.5	(9)	17.4	(6)
Mexico	2.9	(1)	5.3	(2)
Bolivia	0.1	(10)	42.7	(10)
Paraguay	1.3	(7)	14.6	(5)
Ecuador	1.6	(5)	2.1	(1)

Sources Tables IV and XI

If one takes the last fifteen years (1950-1965) and estimates the average rates of growth in per capita output and prices* no clear comparative relationship can be established between growth and inflation in the ten countries. The rate of growth - or of stagnation - depends as what 'sustained' rate happens to be adopted to measure growth in output. The United Nations considers growth - not development - a sustained rise of 5.5% in GNP per annum; something which in per capita terms would be close to 3% for Latin America. Except for Mexico and Brazil

*The can only be taken as crude approximations of the long-run trends in both variables.

**(See footnote in the following page)

none of the countries reach the mark. They all, however, are inflationary in various degrees. Mexico (5.3%) and Ecuador (2.1%) come out with low rates of inflation for this period, but their annual variations in prices have been severe (See Table I, Part II).

Judging by the ranking, however, it appears that countries with mild growth (2.2%) have had milder rates of inflation (8%), i.e. Colombia and Peru; while countries with severe inflation (more than 15%) have been rather stagnant (less than 1.5%), i.e. Argentina, Chile, Uruguay, Paraguay, and Bolivia. But the experience of Mexico and Brazil contradicts the conclusion, and these are precisely the countries with the high rate of growth in which one is interested. Brazil has almost both the highes rates of growth and inflation; while Mexico has the highest rate of growth and a mild inflation.

If the two powtwar decades are now taken and divided into four periods (Table XI) again no relationship appears. The disquieting experience is that both high and low rates of growth are accompanied by various degrees of inflation. There is, however, one important exception that may give a clue to the influence of inflation, if any, on the rate of growth. In Brazil, as the rate of inflation has gained momentum, the rate of growth in output has tended to fall.

Thus, on these simplistic trends, a guide line - not a conclusion - will be adopted: mild inflation seems to accompany mild growth in unstable Latin-American countries (Mexico, Peru, Colombia, Ecuador); while severe inflation seems to bring stagnation (Argentina, Chile, Uruguay, Bolivia, and Paraguay).

(..from the preceeding page)

** 'No doubt, writes R.F. Mikesell, a more penetrating analysis of the economies of individual countries would reveal more fully the operation of the basic monetary factors such as the proximate causes of the increase in the supply of money and its velocity of circulation in relation to output. However, if we are to understand inflation in Latin America we must probe deeper into the factors which determine the flow of both money and goods and into those forces which operate more directly on prices and costs in imperfect markets' (31).

TABLE XI

Growth and Inflation in Latin America[a)]
(1945-1966)

	1945-1951			1950-1955			1955-1960			1960-1965			1966		
	GNP	PGNC	P[c)]	GNP	GNPC	P	GNP	GNPC	P	GNP	GNPC	P	GNP	GNPC	P
Latin America	5.7	3.2		4.7	2.0		4.7	1.8		4.6	1.7		3.1	0.1	
Argentina	4.5	2.6	-	3.2	1.3	21	2.7	0.8	37	2.8	1.3	23	-1.2	-2.1	32
Brazil[d)]	3.7	6.3	12	5.7	3.3	16	5.9	2.8	25	4.9	2.0	62	1.9	-1.2	46
Chile[(d]	1.7	-0.9	21	3.1	0.5	39	3.8	1.4	32	3.7	1.3	27	5.5	3.1	23
Colombia[(d]	6.5	4.3	14	5.3	3.1	7	4.0	1.1	9	4.5	1.7	12	4.5	1.3	20
Peru[(d]	5.3	3.1	18	5.1	2.9	8	4.7	2.1	8	6.3	3.3	9	6.0	2.9	9
Uruguay	-	-		4.2	2.7	9	-0.1	-1.3	23	0.3	-0.9	28	2.6	1.3	73
Mexico[(d]	6.6	3.7	8	6.1	3.2	12	6.1	2.8	6	6.0	2.6	1.8	7.0	3.6	4
Bolivia	-	-		-	-		-0.2	-2.2	53	4.7	2.4	5.1	6.0	3.7	7
Paraguay	4.4	1.5	120				4.7	2.1	12	4.3	1.7	5.3	1.9	-1.1	3
Ecuador	5.5	2.8	3	5.3	2.6	3	4.5	1.3	0	4.2	1.0	3.8	3.3	-0.1	6

a) Sources: Economic Survey of Latin America (1953-1967) and International Financial Statistics, IMF (1952 and 196

b) 1946-1955

c) Average of annual changes in the cost of living

d) Prices are for 1947-1951

(1) ECLA, Towards a dynamic development policy in Latin America, UN, N.Y. (ECN. 12. 680).

(2) ECLA, Theoretical and practical problems of economic growth, UN, N.Y. (ECN 121/221) and The economic development of Latin America in the post-war period, UN, N.Y., 1964.

(3) O. Sunkel, The structural background of development problems in Latin America, Weltwirtschaftliches Archiv, Hamburgh, 1966 II - (Pag 34).

(4) R. Prebisch, The economic development of Latin America and its principal problems. Econ. Bull. for Latin America, Vol. VI, 1961.

(5) D. Seers, Inflation and growth: a summary of experience in Latin America, Economic Bulletin for Latin America, Vol. VII, UN, N.Y., 1962 (pag 23).

(6) D. Seers, see especifically, Inflation and growth: the heart of the controversy in Inflation and growth in Latin America, Ed. W. Baer and I. Kerstenetzky, Irwin, III, 1964.

(7) D. Seers, op. cit. (pag. 26).

(8) T. Balogh, Economic policy and the price system in Econ. Bull. of Latin America, Vol. VI, UN, N.Y., 1961.

(9) See footnotes 2, 3 and 4.

(10) O. Sunkel, op. cit. (pag. 37).

(11) D. Felix, An alternative view of the structuralist-monetarist controversy in Latin American Issues, Ed. A. O. Hirschman, XX Century Fund, N.Y., 1961. (Pag. 91).

(12) ECLA, op. cit.

(13) O. Sunkel, op. cit. (see pags. 49 to 53).

(14) D. Felix, op. cit. (pag. 85-6).

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(16) A. O. Hirschman, Journeys towards progress (Inflation in Chile, 1872-1924), XX Century Fund, N.Y., 1963 (see pags. 163-175).

(17) Economic Survey of Latin America, UN, N.Y., 1966 (see pags. 53-4).

(18) Idem op. cit. (pag. 53).

(19) D. Seers, A theory of inflation and growth, based on the experience of Latin America, Oxford Economic Papers, Oxford, June 1962, (see pags. 184-6).

(20) ECLA, The process of industrial development in Latin America, N.Y., 1965 (Table 12).

(20bis) R.F. Mikesell, Inflation in Latin America (Committee of Foreign Relations) US Government, Washington, 1967, (pag. 2).

(21) For a discussion on the subject see R. Prebisch, The economic development of Latin America, op. cit. (see pags. 8 - 13).

(22) ECLA, op. cit. (pag. 51).

(23) M.H. Simonsen Comment in Inflation and growth in Latin America, Ed. by Werner Baer and I. Kerstenetzky, op. cit. (pag. 109).

(24) C. Massard, Comment in above source. (pag. 107).

(25) R.F. Mikesell, op. cit. (pag. 2).

(26) CEMLA, Aspectos financieros de las economias latinoamericanas, 1957-1964, Mexico, 1965.

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(28) C.H. Zondag, The Bolivian Economy, F.A. Praeger, N.Y., 1966.

(29) G.S. Dorrance, The effect of inflation on economic development in Inflation and growth in Latin America, op cit.

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(31) R.F. Mikesell, op. cit. (pag. 7).

PART II

"A Confrontation of the Monetarist-Structuralist Controversy"

CHAPTER I

Introduction

The first problem encountered when studying the subject of inflation in Latin America is trying to define what is 'monetarism' and 'structuralism'. A Definition will be attempted in this introduction; in the separate exposition and empirical analysis of both doctrines in the following two chapters; and with respect to their different policy views on the last part of the survey. The controversy, however, is far from the clear cut case where both arguments would be separated into two different parts of a whole. In general terms, one could consider the Latin-American polemics as a corollary of the general controversy between demand-pull and cost-push inflation *. But, as it shall be seen, if such a criteria is adopted one is bound to find oneself dealing with a very 'peculiar' corollary.

Thus initially it is convenient to try to establish a guide-line on what is monetarism and what is structuralism; where the schools differ basically; where there might be agreement; and, to propose an analytical system for the survey. It is assumed here, with respect to the system and guideline, that the controversy is carried on two levels: first, theoretically on the causes or nature of Latin-American inflation; and, second, on the policy recommendations to reduce and avoid - or live with - inflation. It is hoped that the approach will also clarify the initial problem.

The background of the controversy - for theoretical purposes - is the chronic inflation of Latin-America which, starting in some countries during the 1930's, which coincided with an acute external disequilibrium. The special focus - for policy purposes - has been the International Monetary Funds' (IMF) supported anti-inflationary programmes. These programmes -which are formed by orthodox policies based on credit and budgetary constraints, exchange rate devaluation, and the elimination of exchange and some price controls - intended to stop inflation, gave further way (along the 1950's) to the question of whether stability would be achieved at the expense of economic growth. Thus it is tempting, but dangerous, to try to base the distinction between the opponents in a simple correlation, whether positive or negative, between growth and inflation (as Dr. Simonsen does **).

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* For my views on the subject see the background paper I wrote for this work. The section on the theory of inflation.

** 'It seems to me, writes the author, that the simplest and also problably the best definition of the conflicting views lies in the expected sign of the correlation between inflation and growth. Monetarists believe the correlation is a negative one; structuralists believe in a positive regression coefficient (1). For Dr. Simonsen's discussion of the Brazil case see the footnotes (2).

It is the intention of this work to probe deeper into the distinction and, as it was said, into the possibility of a correlation. However, let us pick up the subject from here: What are the differences, simplistically, between monetarists and structuralists?

a) The complex relationship between growth and inflation in Latin America. Monetarists violently reject the idea that the rate of growth may be a positive function of inflation. Structuralists, may grant this with reservations, but are willing to be more permissive with certain types and rates of inflation. The difference between both doctrines in this respect really appears in the context of economic policy measures, although structuralists are seldom as explicit as monetarits.

b) The historical nature or causes of inflation. Superficially, monetarits (this is where the term comes from) are advocates of demand-pull inflation. While, structuralists are a peculiar brand of 'mixed inflation';where either excess demand or cost-push may have the original blame, but where this tends to have a secondary importance. That is, where inflation - either measured in excess demand or in climbing costs - is a consequence of 'autonomous factors (i.e. the external sector) and the structural characteristics of the economy (its underdeveloped nature).

c) The inflationary spiral (perhaps the most important aspect in the policy nature of the controversy). For monetarists inflation starts and develops mainly as a consequence of monetary and budgetary expenditure; and, price distortions and controls, with special reference to the foreign sector; but, also, through wage increases which may be autonomous. Thus the term 'monetarism' has been stretched. Structuralists, on the other hand, see inflation developing as a consequence of supply bottlenecks which pari passu activate the propagating causes of inflation, with special emphasis to exchange rate devaluation.

d) The traditional unorthodox role of economic policy. Monetarists are inclined to see the policies followed by the monetary and fiscal authorities are responsible for inflation; while structuralists see authorities as 'forced' - with reservations and qualifications' - by autonomous factors to follow unorthodox financial measures. Indeed the concept of compatible growth and equilibrium is the context of unorthodoxy.

e) The political bias. Grossly over-simplifying, monetarists tend to be part of the peculiar liberal tradition of Latin America (which today is 'conservative') and structuralists comprise all kinds of socialists (public-interventionists, to put it in Latin-American terms).

Stated in these bold terms the distinction between the schools may appear simple. However, let us go slightly into the literature to see that this is not so and to support the above guideline.

It should be clear that the debate from its start was one on the causes or nature of inflation. 'Superficially, writes professor Grunewald, it may be considered a corollary of the demand-pull versus cost-push discussion, although the structuralists and the cost-push arguments seem to have little in common' (3). This point is important because it limits the notion that structuralists are only concerned with supply-inflation, and not with demand pull*. But from here on structuralists go on to discuss whether stability is only achieved at the expense of the underutilization of resources and with greater costs than those of the inflation it strives to cure.

Because of opinions like the above, monetarists -see for example, professors Bruton and Dorrance (6) - have seen in structuralists a negative permissive attitude towards inflation. For the above authors since in many underdeveloped countries (UDC) savings and public revenues are insufficient to finance a given rate growth, structuralista have tended to think that inflation is an easy method of expanding investment and hence to finance it through the loans of the central banks to private investors or to the government itself. Thus they blame structuralists for making inflation the instrument of policy rather than the control of inflation an object of policy. Furthermore, inflation is then a result of public policy aiming at higher investment than what is compatible with price stability, in the false hope of accelerating growth. Structuralists, as we shall see, reject the accusations. For the moment, the general answer is that authorities are 'forced' to be financially expansive. But, monetarists answer that it becomes clear that inflation is a consequence of a weak monetary system, particularly when there are strong wage pressures and distortions in the price system. Hence monetarists are stressing that increases in the supply of money and inflation are obviously related - the relationship being imperfect because of the velocity of circulation. No structuralists will deny such a fact. So monetarists then argue again that the supply of money has increased because of financial irresponsibility. This brings down the discussion to the 'reasons' for the increase in the supply of money and again to the causes of inflation.

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*The author later claims that in the controversy 'there is hardly any question of the ability of monetary policy to achieve its price stability' (4). The statement seems unfair to structuralism because it assumes their ignorance of the theoretical work in advanced countries around the inelasticity of investment to changes in the interest rate, the difficulties of controlling the supply of money, and the limited scope of monetary policy. This would appear to be one of their major arguments. It is possible, of course, that the professor is referring to only 'shock' treatment, with which stability would be achieved at the expense of growth. For this view see professor Seers (5).

Structuralists have claimed from 'a start' that it was doubtful that economic policies were the main cause of inflation. Inflation can stem, writes professor G. Maynard, from external pressures where the government has no direct control; in such a case the government may have to accept some inflation or forego some conditions for growth. Sharp swings in the prices of the exports of primary goods - produced inelasticities of demand or supply - introduce instability into monetary systems, particularly when both the supply of money and fiscal revenues are geared to foreign exchange earnings or credits. The fact may not only produce fluctuations in incomes and prices, but act as a chronic pressure towards inflation. Thus, it was claimed, UDC seek industrialisation and less dependence on exports. Imports, however, remain a feature of the system. Moreover, necessary as this is, in the long run, industrialisation may further create monetary instability (7).

'A proposition that could serve as a common denominator for monetarists, writes professor T. Davis, would be: that secular inflation cannot persist without secular increases in the supply of money (at rates in excess of the rate of increase in output and services ; and that inflation cannot be halted without limiting the rate of expansion of the supply of money (to correspond to the rate of growth of output)' (8). Structuralists interpret this as wrongly blaming inflation on the 'perfidy or incompetence' of central banks.

The unifying proposition for traditional structuralists would be that supply schedules in general (with emphasis on agricultura and infrastructure) and foreign exchange in particular (with emphasis on the adverse terms of trade), are substantially less elastic than those in developed countries. Monetarists agree that, considering the continous changes in the structure of demand, such inelasticities may account for some inflation. But, monetarists - professor Mikesell, for example (9) - are willing to accept this explanation for a 5 to 7% rate of inflation, but not for a persistent inflation of 10 - 40% over the last thirty years. The argument isreduced to which come first: inelasticities of supply (structuralism) or inflation (monetarists).

Some sistematization with respect to both schools has been achieved by Dr. de Oliveira Campos, a well known monetarist (10)*. Monetarism, for the author, is based on the following assumptions:

a) Inflation is caused by imprudent actions of the monetary and fiscal tuthorities.

b) It has ceased and it is incompatible with development.

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*Being the author a staunch monetarist, his observations should not be taken at face value.

c) It must be stopped quickly - for its own sake and before it degenerates into hyperinflation - by reducing excess demand through monetary or fiscal policies - prudent or shockers - and with international credits.

d) Most of the supply inelasticities or bottlenecks are caused by price andexchange rate distortions generated by the inflationary process itself and through arbitrary public intervention.

Structuralists, for the author, assume what follows:

a) Inflation is a natural accompaniment of growth (something which, however, most structuralists reject).

b) It cannot be reduced by monetary and fiscal policies without provoking unemployment or stagnation because of supply rigidities.

c) Inflation is a consequence of a weak foreign market and an inelastic food supply. The instability of export proceeds (or foreign exchange) generates an import-capacity bottleneck and makes it impossible for inflation to be stopped in the short-run.

d) The relative rigidity of the government budget means that the alternative to central bank credit would be a decrease in public investment.

e) The simple remedy of monetary policy will be detrimental to the growth of the economy.

f) One could also add that a costly and oligopolistical import substitution process and a regressive distribution of income are important autonomous sources of inflation.

Nevertheless, the author arrives at the conclusion that 'to a certain extent the views are less different than it might appear, the divergences being more of method and emphasis than of substance' (11). The statement might appear to be substantiated when one listens to the 'official structuralist' position, that of the United Nations Economic Commission for Latin America (ECLA). In the words of Dr. Prebisch: 'ECLA does not believe that inflation is inevitable in the economic development of Latin America. It rejects the theory that inflation is caused solely by the financial disorder and lack of monetary restraint of the Latin-American countries, because there are extremely powerful structural factors which lead to inflation and against which monetary policy is powerless. This is the first fact. The second is the critical position adopted towards certain measures aimed at monetary stabilisation. It is agreed that a supreme effort must be made to arrest inflation and achieve stability, but not at the expense of a decline in the rate of growth, of stagnation or of a slowing-down of its rate of development' (12).

In another place Dr. Prebish writes that '... there has been the belief that inflation is an unavoidable means of forced capital accumulation where voluntary savings is insufficient. One fact stands out: the stimulus of monetary expansion has led to a high level of employment and thereby to an increase in income. It may happen that this effect, however, appears in the initial phase of credit expansion and not in the subsequent inflation. As the process develops, the increase in employment and real income has been less marked, and that of prices and concentration of income more so' (13). However, it is the intention of this work to show that monetarism and structuralism in Latin America differ basically - both in economic philosophy and theory and less so in policy thinking -, although there are some similarities which, nonetheless, it is dangerous to exaggerate.

Lastly, for this work the debate is more than a Latin-American version of the dispute concerning the efficacy of monetary tools in stabilising the price level. It also involves a deep disagreement over the ability of the price mechanism to bring about a socially acceptable rate of growth, as well as a distribution of income. There is also, as it was said, a great deal of political bias. The fact is well summarised by D. Felix. 'The structuralist dispute with the monetarits is thus carried on at three levels. There is a disagreement as to the causes of the inflation and of the efficacy of tightened credit, fiscal retrenchment and the elimination of direct controls in checking it. There is a closely related disagreement on economic development policy. Finally, there is a mistrust of the Rightist sponsorship of the stabilisation programs which stems from the fact that many of the structuralists are partisans of the Left (14)'.

With reference to the initial guideline and to the literature implicit in the above quotations, the next step is to summarise the main features of both sides of the controversy; assuming an 'ideal monetarist' and an 'ideal structuralist'. The outline will be based on three levels of distinction: the main causes of inflation and its spiralling nature; the policy measures suggested; and the economic objectives implied. These last ones are listed in a deliberate order, although this is not the place to discuss priorities and compatibilities. The following outline, of course, does not pretend in any sense to be comprehensive or subtle.

1.- Monetarism

A. On the causes of inflation

1- The supply of money and quasi money

2- Budget deficits

3- Wage inflation (however structural one may consider it)

4- The perturbed price mechanism.

a) Price controls, with emphasis on over-valued exchange rates

b) Distortions in savings and investment

c) Disencouragement of foreign investment

d) Distortions in international trade

e) Induced supply bottlenecks.

B. On the policy measures

1- Monetary policy

2- Fiscal policy (higher revenues and lower expenditure)

3- Incomes policy

4- Devaluation and a free exchange rate system

5- Abolition of domestic and external price controls with reliance on the workings of the price system

6- Foreign investment and credits

C. On economic objectives

1- External equilibrium

2- Price stability

3- External and domestic liberalisation

4- Income redistribution and higher savings

5- Price signals and confidence in expectations which will result in higher domestic and foreign investment

6- Economic growth

y- Public debt management and increased public services.

2.- Structuralism

A. On the causes of inflation

1- The foreign exchange bottleneck

2- The agricultural bottleneck

3- The infrastructure bottleneck

4- The regressive distribution of income and the low level of savings

5- The implications of the import substitution process

6- The propagating causes of inflation (with emphasis on devaluation and de-emphasis on wage escalation)

B. On the policy measures

1- Devaluation, foreign credits, direct controls, import substitution, export promotion, a common market, etc.

2- Land reform, economic and technical assitance, etc.

3- Increasing public investment and a fiscal reform

4- Incomes policy

5- A 'new' monetary policy

C. On the economic objectives

1- Maximisation of the rate of growth

2- Higher employment

3- Public debt management
4- Redistribution of income
5- External equilibrium
6- Price stability.

Sections A, for both doctrines, are described empirically with respect to the ten selected countries in the following two chapters. Sections B and C are restated in Part III, but with special reference to the stabilisation programmes of Argentina, Chile, and Peru.

Chapter II

The Monetarist Side of the Argument

Monetarism is far more than an emphasis on the monetary causes of inflation and on the need of restricting the supply of money and quasi-money. A stable price level and external equilibrium (although this subject is rather ambiguous) are considered necessary for growth. Through them savings are encouraged, exports will expand, foreign capital is attracted, domestic capital will stay at home, long-run investiment will be greater, and so on. The general idea is to create an atmosphere where growth will take place spontaneously, as a result of private enterprise responding to profits. In such an ideal situation, an ideal monetarist would claim, the government would limit itself to keeping the budget balanced, avoiding credit expansion, maintaining a steady exchange rate and giving the price system a chance to work*. As far as economic theory and thought, during the XIX century when the United Kingdom, the United States and Western Europe industrialised these principles were broadly followed; the recovery of West Germany since the War also adopted the same philosophy.

There is, of course, a respectable and elaborate body of theory to support this attitude, the classical school. To summarise very drastically the essential points of this doctrine, in the words of professor Seers (16):

a) The working of the price system will ensure that resources will be automatically mobilised for the satisfaction of society's needs - Adam Smith's invisible hand.

b) If these wants are not adequately expressed, it is nevertheless dangerous to tamper with this distribution because one might impair incentives; and, in the view of some, reduce savings and employment.

c) International free trade should allow each country to specialise in the lines of output where it enjoys comparative advantages, and all countries should benefit.

d) Economic policy is reduced to maintaining a stable currency, balancing budgets and, in later versions, by curving the expansion of bank credit, so that growth will take place spontaneously. **

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*See, for example, Mr. A. Alsogaray, former Economic Minister in Argentina (15); or the cited references Dr. Seers makes of the IMF's economic philosophy.

**Before assessing the relevance of this doctrine to Latin America today, one should candidly ask oneself, as it was done in the background paper mentioned, why it has ceased to be held widely, at least in this form, in the industrialised countries. The reasons for its modifications and partial rejection abroad may give some clues on the ways it should be modified or rejected in the Latin-

To achieve this ideal state, however, monetarists desire tighter credit constraints, cuts in public expenditure, partial wage freezes, devaluation and a liberalised external sector, and the repeal of various types of subsidies and direct controls. Halting inflation and abolishing controls and subsidies would, they believe, eliminate most of the imbalances and supply bottlenecks on which the structuralists lay such heavy stress. Monetarists believe, moreover, that there is a potential in the private sector as well as a possibility of attracting larger amounts of foreign capital. But to realise this potential Latin-America must undergo a painful but necessary anti-inflationary programme to clear the distortions and obstacles to growth induced by inflation*. The monetarist position, nevertheless, should not be taken to extremes. Mr. Felix writes that 'this is not to say that monetarists want a free economy in the (complete) classical sense. They, too, presume protection against competing imports and ... infrastructure investment' (17).

Having stated this doctrinal background, the next step is to analyse the core of the monetarist argument: the causes of inflation and the subsequent policy measures recommended. It is very difficult to try to divide and give priority to the different'causes of inflation' in the monetarist analysis. They form a whole, - reflected on the inflationary spiral - where they intermingle. However, artificially and following the general emphasis of monetarists, they have been divided in the following order and under the following headings: the supply of money and quasi money, budget deficits, wage inflation, savings and investment, and distortions, price controls and indueed bottlenecks. Devaluation is treated somewhat apart because here monetarists and structuralists in Latin America tend to come more within reach of agreement. The second part of the monetarist argument is, of course, the stabilisation policies. In this chapter, however, only marginal comments will be made on the subject; in the understanding that it is possible to dedicate an empirical chapter to three cases of stabilisation programmes in Latin America

A.- On the Causes of Inflation

a) The supply of money and quasi-money

Without any doubt for monetarist a fundamental cause of Latin-American inflation lies in the 'irresponsible' expansion of the supply of money. Dr. de Oliveira

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*They implicitly believe that a stabilisation programme will first reduce the rate of inflation and later abolish it; something that is not necessarily true in prac

**American case.

writes: "a statistical effort in Latin America is necessary to determine the possible correlation between the expansion of the effective money supply, indicating a passive behaviour of the monetary authorities, the rate of price inflation and the rate of growth" (18). For the author this would prove that in the majority of the ten economies selected the expansion in the supply of money has been of such a magnitude (20 to 30% per annum*) as to outstrip any realistic possibility of it growing in relation to increases in the real domestic product plus net imports. At such a rate of monetary expansion any economy, underdeveloped or not and with or without supply bottlenecks, would not fail to have inflation. The proposition has been taken for the ten countries chosen and, initially, the comparison between the annual changes in the supply of money and quasi-money and the annual changes in the cost of living has been established. Later on, unlagged and lagged comparisons are made.

Turning to the first Table, what simple comparisons may be established between the supply of money and money plus quasi-money and inflation?

1- It appears that it is not necessary for the supply of money to increase at, say, more than 20% per annum to have strong inflation. This is not true for all countries; i.e. Mexico, Peru and Ecuador.

2- But, what is evidence for the monetarist argument, is that the most inflationary countries - Argentina, Brazil, Chile, and Uruguay; and Bolivia and Paraguay during the 1950's - have indeed the highest rates of monetary expansion. In fact, they tend to be over 20% per annum. Colombia is a border case. While the less inflationary countries - Peru, Mexico, and Ecuador - have milder rates of money creation.

3- Moreover, what also appears important for monetarists is that periods of strong inflation are also periods of a higher rate of expansion in money. Not much reliance, however, should be placed on this: while this is perfectly true for Brazil all along 1946-1965, in Mexico the more stable years (1961-1965) were accompanied by higher monetary increases.

4- With exceptions, on the whole, the increases in money plus quasi-money are stronger than those of money alone. In Brazil, however, when quasi-money is incorporated the rate of money expansion is moderated. This is a consequence of the expansion of Central Bank credit, especially to the government; something that constitutes evidence for monetarists (for a discussion on Brazil's Central Bank borrowing see ECLA, 19).

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*This not present in Peru, Mexico and Ecuador, and hardly in Colombia. See Table I.

TABLE I

The Supply of Money and the Rate of Inflation [a] (1946-1965)

(Annual % change with relation to previous year in money[b], quasi-money[c], and the cost of living)

Country[d]	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina																				
M	30	21	26	24	21	23	13	26	20	18	17	16	44	48	24	11	3	29	42	29
M+ QM	-	18	-	30	18	17	13	24	20	17	23	13	42	35	30	14	6	33	43	31
P	20	13	14	29	33	33	38	5	4	13	13	25	32	114	27	14	38	24	22	29
Brazil																				
M	4	10	0	17	34	17	14	19	22	17	22	34	21	42	38	51	63	64	89	75
M+ QM	-	5	12	17	28	14	13	17	21	15	20	32	21	40	39	48	60	63	85	75
P	15	19	18	10	4	8	25	20	19	20	22	19	15	37	35	38	52	75	85	61
Chile																				
M	27	21	14	19	16	32	-	-	-	-	40	27	35	32	31	13	29	34	51	65
M+ QM	-	17	13	23	9	35	-	-	-	-	42	31	36	30	67	17	23	37	58	54
P	10	23	18	20	17	29	22	18	77	74	58	25	27	39	12	8	14	45	46	28
Colombia																				
M	23	10	17	22	11	10	18	23	13	6	26	13	22	12	8	25	20	12	21	15
M+ QM	-	-	-	-	10	9	25	14	41	0	33	3	18	10	12	22	27	15	19	22
P	8	18	16	7	21	9	-3,2	8	9	-1,4	7	14	7	4	6	9	3	32	17	4
Peru																				
M	27	14	12	12	22	13	14	9	6	18	4	7	24	13	19	4	12	15	17	15
M+ QM	-	-	-	-	24	16	17	14	11	14	16	10	7	16	15	18	14	18	21	18
P	9	29	30	13	14	10	6	9	5	5	5	8	8	13	8	7	5	7	8	16

Country	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Uruguay[e]																				
M	13	2	11	7	–	-2.3	9	13	24	6	28	8	24	42	35	22	-3.2	29	42	103
M+cM	–	–	–	–	–	15	7	14	9	6	12	16	23	25	27	23	10	53	37	75
P	12	15	2	5	-4.7	15	15	6	12	8	7	15	18	40	39	22	11	21	43	56
Mexico																				
M	-3.2	0.3	13	11	38	13	4	11	11	20	11	7	7	16	9	6	14	16	18	6
M+cM	–	–	–	12	30	12	7	12	17	17	11	10	10	11	4	13	12	18	15	11
P	21	13	6	6	4	13	15	-3	6	16	4	6	12	2	8	1	1	1	3	4
Bolivia																				
M	–	–	26	18	–	20	52	80	65	104	251	48	3	28	9	18	12	20	21	26
M+cM	–	–	26	18	–	20	42	74	61	106	250	52	-2.3	32	6	18	16	20	22	25
P	–	–	–	11	0	0	100	100	125	78	181	116	3	20	12	8	6	-1	11	6
Ecuador																				
M	11	-13	7	10	29	-8	24	4	17	-6.3	11	4	-1	13	10	3	12	12	12	3
M+cM	–	–	–	–	29	-8	23	7	17	-6	14	14	-5	7	15	8	13	12	9	6
P	–	14	7	1	0	12	3	0	3	2	-5	0	2	0	3	2	4	3	6	3
Paraguay																				
M	16	12	46	70	–	–	48	24	33	36	3	19	9	2	27	-4	11	11	21	10
M+cM	–	–	–	–	–	–	50	24	18	36	0	24	12	6	30	5	19	26	15	13
P	25	31	33	35	–	–	117	73	20	24	21	16	6	10	8	18	1	2	1	4

a) Sources: International Financial Statistics, 1966 and ECLA, 1949
b) Money is central banks' reserve money plus demand deposits
c) Quasi money is time and savings deposits.
d) End of period
e) Almost end of period

5- But, what is disquieting to find from the monetarist angle, is that there is no simple relationship between increases in money and prices. The rate of expansion in the supply of money may be made to contract and still prices may increase very noticeably; also the rate of inflation may decrease substantially together with a sharp rise in money (for example, in Argentina and Chile). Thus a statistical correlation may be helpful, as well as the establishment of time lags.

Let us then turn to Table II. Here linear correlation coefficients have been estimated for the ten countries. The monetary variables have been correlated to prices in three ways: without lags (P); with a 'monetarist year-lag' (P+1) where increases in money are reflected in next year prices; and with a 'structuralist' year lag. (P-1) where semi-autonomous prices increases force the monetary authorities to be 'permissive' so that monetary increases coincide with last year's prices.

1- Initially one was rather doubtful whether such a correlation would be of much use. Indeed this might be a 'spurious' correlation since the two variables are obviously related! However, as it might be seen, the results were rather surprising and helpful to some extent in our controversy. Moreover, they corroborate the above observations.

2- The first surprising fact is that there is no obvious correlation - a high correlation, say 0.7 or 0.8 - between money increases and price increases; something which is clearly implied by monetarism. Different countries had very different experiences.

3- The monetarist argument, with qualifications that limit it as we shall see below, only holds for the most inflationary countries. Its theory really seems to apply to Bolivia* and Paraguay, the non-industrialised countries of the group. Here the correlations were high both for P. and P+1. It also applies in the cases of Brazil and Uruguay, but with the difference that here the P-1 lag was also significant. Thus the evidence may appear inconclusive. One could claim nonetheless that the variables were 'so' related that they would be significant in all three cases. The fits of the equations were reasonably realistic.

4- But, this is as far as one can stretch the monetarist argument. The bewildering cases of Argentina and Chile, both very inflationary countries,

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*That Bolivia's inflation was 'caused' by the Central Bank is something established. However, it is superficial to reach the conclusion that it was a credit squeeze —stabilisation programme that halted inflation in the 1960's. It should be remembered that inflation in this case is a 'political' consequence of the 1952 Revolution (we shall turn briefly to the subject below). For an introduction into Bolivia's inflation see Mr. C.H. Zondab and Mr. G.J. Eden, (20).

TABLE II

Correlation Coefficient (r), Standard Error (se), and Linear Regression (y=a+bx) for the Supply of Money (M) and Quasi-Money (M) and the Rate of Inflation (P), 1946-1965[a]

COUNTRY	P[b]			P+1[c]			P-1[d]		
	r	s e	y=a+bx	r	s e	y=a+bx	r	s e	y=a+bx
Argentina									
M	0.43	0.18	y=4.8+0.9x	0.40	0.19	y=7.2+0.8x	0.14	0.22	y=19.5+0.3x
M+ M[e]	0.22	0.23	y=17+0.5x	0.41	0.20	y=6.4+0.9x	0.29	0.23	y=15+0.6x
Brazil									
M	0.90	0.04	y=2.1+0.8x	0.80	0.08	y=6.7+0.7x	0.87	0.05	y=0.3+0.8x
M+ M	0.91	0.04	y=1.5+0.9x	0.81	0.08	y=6.1+0.8x	0.89	0.05	y=0.8+0.8x
Chile[b]									
M	0.47	0.25	y=10.5+0.55x	0.44	0.25	y=10.8+0.67x	0.09	0.31	y=23+0.09x
M+ M	0.22	0.30	y=21+0.22x	0.48	0.34	y=9.6+0.65x	-	-	-
Colombia									
M	-0.14	0.22	y=12.9-0.19x	0.22	0.21	y=5.4+0.3x	-	-	-
M+ M[g]	-0.12	0.24	y=10.8-0.01x	0.16	0.24	y=6.7+0.13x	-	-	-
Peru									
M	0.08	0.22	y=0.5+0.09x	0.57	0.15	y=2.6+0.5x	0.07	0.22	y=9.2+0.09x
M+ M[b]	0.41	0.21	y=3.1+0.34x	0.21	0.24	y=5.7+0.15x	0.29	0.23	y=5+0.2x
Uruguay[i]									
M	0.83	0.08	y=9.3+0.5x	0.81	0.09	y=9.6+0.63x	0.61	0.16	y=9.7+0.3x
M+ M	0.75	0.18	y=6.4+0.6x	0.89	0.05	y=1.8+1.78x	0.75	0.11	y=7.9+0.4x

COUNTRY	P			P+1			P-1		
	r	s e	y=a+bx	r	s e	y=a+bx	r	s e	y=a+bx
Mexico									
M	-0.38	0.19	y=9.99-0.28x	0.17	0.22	y=4.79+0.11x	-0.29	0.22	y=10.13-0.24x
M+ΔM	-0.15	0.24	y=7.63-0.15x	0.47	0.19	y=-0.34+0.45x	-0.22	0.23	y=8.8-0.21x
Ecuador[e]									
M	-0.54	0.16	y=4.9-0.2x	-0.23	0.21	y=2.5-0.01x	0.20	0.23	y=2.3+0.01x
M+ΔM[j]	-0.40	0.20	y=3.8-0.14x	0.50	0.19	y=1+0.18x	0.17	0.24	y=1.6+0.06x
Bolivia[k]									
M	0.83	0.08	y=10.9+0.8x	0.62	0.16	y=21.3+0.6x	0.36	0.23	y=33.1+0.3x
M+ΔM	0.81	0.09	y=12.5+0.8x	0.60	0.16	y=22.9+0.6x	0.36	0.22	y=33.5+0.3x
Paraguay[l]									
M	0.62	0.17	y=1.7+1.4x	0.77	0.11	y=2.7+0.98x	0.43	0.23	y=3+1.2x
M+ΔM	0.61	0.17	y=6.9+1.5x	0.69	0.14	y=4.6+0.97x	0.18	0.27	y=14+0.6x

Sources: International Financial Statistics, IMF, 1967; and ECLA, 1949.

b) P is equal to unlagged prices.
c) P+1, is equal to the relation between money and prices in the next year.
d) P-1, is equal to the relation between money and prices in the previous year.
e) 1949-1965
f) 1950-1965
g) 1950-1965
h) 1950-1965
i) 1951-1965
j) 1947-1965, 1950-1965
k) 1951-1965
l) 1952-1965

still have to be explained. Their coefficient in the best of cases (p+1) cannot be taken to be significant (0.48). The constant term in the equations moreover, indicates that other were the main factors behind inflation. Thus it might be better to look for the causes of inflation with respect to the velocity of circulation, structural causes, or the role of public expenditure, wage increases and devaluation. This applied more so to the next group of countries.

5.- In the less inflationary countries -Colombia, Peru, Mexico and Ecuador- there is no correlation between monetary increases and prices. Indeed, as it was pointed out, the correlation was negative in Mexico, Colombia and Ecuador in some cases. Only in Peru -in the case of p+1 with respect to M+QM/- did the coefficient reach 0.57. But, while these relations cast much doubt over what monetarists regard as obvious, it does not constitute proof for the structuralist argument: p-1 had no significance in any case. This, again, indicates that a study of the rest inflationary variables is necessary.

The object of the above exercise has been to stress that evidence of the relation between the supply of money and the price level in Latin America is rather scanty; and, not obvious as a monetarist will tend to have it. This is important because, presumably on such evidence, the monetary authorities of some of these countries, often under pressure from the IMF, have applied stabilization programmes which may unduly rely on the scope of monetary policy alone.

The above correlations are in fact too simplistic (although they stem from the also simplistic approach that monetarist have adopted towards the quantity theory when dealing with the region's inflation)*. The relationship between the supply and the demand for money leads to the highly controversial subject of the income velocity of circulation. Monetarists, at least from the limited experience of this work, seem to have gone into the subject by simply assuming that velocity is nearly constant and hence monetary controls a fundamental instrument to check inflation. With structuralism the approach has been more complex, although not immune from superficiality. They grant that increases in the supply of money are a secondary factor that helps to propagate inflation. But they insist that there are "real causes" which force the monetary authorities to be permissive and, what is more, that the control of the supply of money -unless

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* See, for example, the above quotations of Dr. de Oliveira and Mr. Alsogaray and the position of the IMF discussed in Part III, Chapter 2.

draconian- will not by itself secure stability. Structuralists say,, often quite implicitly, that the velocity function is very unstable. In the last resort, their implication is that inflation will go on despite a control of the supply of money, assuming that this is possible. Moreover, both monetarists and structuralists seem to leave the subject at this, and proceed to discuss other causes of inflation and policy measures. One cannot blame structuralists too much since they point out that their interest lies in their fundamental causes of inflation. (See the introduction to chapter 3).

From the angle of this section, however, the core of the matter remains in the behaviour of velocity -which, following the latest developments in monetary theory, is still a theoretical and empirical issue*. Monetarists would be correct in "moving on" and assuming that velocity is stable if the adoption of stabilization programmes had led to price stability. But such programmes have been tried and inflation in the majority of cases continues. Structuralists, taking an extreme position, by implying that velocity perhaps has no upper limit seem to bring in the possibility of hyper-inflation into the pecture. But, in a period of over twenty years characterized by sharp increases in both money and prices, the region has not found herself near that situation (perhaps with the exception of Bolivia). Can one then assume an upper limit to velocity -or a resistance to further increases?

This is clearly an important issue that merits some comment. The discussion, however, will take one beyond the controversy itself. In as much as the subject, at least in the present literature of the region both from monetarist and structuralists, has been by-passed with marginal assumptions, usually theoretical and not exempt from value judgements, on income velocity. It is hopped nonetheless that this section will contribute a background for the understanding of the region's inflation. Because whatever assumption is adopted with respect to the demand for money as a flow will determine to a large extent the policy measures chosen. Moreover, it seems helpful to try to make this assumption an explicit and empirical one.

This partial digression will cover the following ground: (i) a theoretical statement on the monetary controversy; (ii) an empirical description of velocity; (iii) an analysis of the demand for money with reference to foreign assets and deposits in foreign currency, the effect of stabilization programmes, the structure of the rate of interest, and some indicators on the behaviour of the bond market and the stock exchange, plus comments on institutional arrangements.

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* H. Johnson, Monetary theory and policy, Am. Econ. Rev., June, 1962.

(i) A Theoretical statement

Some structuralists hold that the controversy in advanced countries -and hence a focus on the demand for money as a flow- is irrelevant to the region's inflation*. In very crude terms, the theory postulates a certain interaction between demand-pull and cost-push in the context of supply bottlenecks, income growth, and the underdevelopment of the region; and, only secondarily, on the financial markte (see Chapter 3, the introduction). Special attention is given to establishing a relationship between the inflationary process and the external disequilibrium. At the present stage of this work, however, the proposition seems too extreme, in the sense that velocity also merits special attention. That is, although for particular structural reasons the scope and efficiency of monetary policy could be challanged -as it is done in advanced countries- it role in contributiong towards stability and within general economic policy seems selfevident. The different particular monetary tools and their scope, however, are not selfevident.

If it is assumed that the supply of money is contracted by the authorities but that this given volume can be made to sustain a larger or a smaller volume of transactions, the demand for money becomes a highly unpredictable variable (from the angle of the income motive) and the concept of controling its supply is put into question. On the other hand, the constancy in the velocity fuction in the quantity theory rests on the assumption that expenditure is regulated by the desire to hold money balances equal to some proportion of income. Contempo rary monetary theory, as it was said, regard these assumptions as an empirical issue. This being so, the adoption of the controversy to the peculiar structural and financial characteristics of Latin America is, to say the least, a major undertaking outside the scope of this work. It is hoped, nontheless, that what follows may constitute an introduction into the subject.

The core of "the life long controversy" is between a constant or a stable velocity function or a relatively elastic and unstable function. A traditional point of start for the quantity theory was the Fisher equation; and the Keynesian revolution which, on the other hand, left the theory discredited as tautological and offered a whole new apparatus of "income-expenditure".

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* See, for example, J. Noyola, El desarrollo económico y la inflación en México. Investigación Económica, Mexico city, March, 1956; and D. Seers, Inflation and growth: the heart of the controversy and Inflation and growth a summary of experiences in Latin America, ops, cits.

The controversy has grown rather sophisticated with time, and much empirical analysis has been contributed*. Professor Friedman and what today is called the Chicago School has had an important rebirth of fundamental consequences to economic policy. The Keynesian tradition has continued to develop and, what is just as important, different Neo-Keynesians have "taken-off" in different directions. With respect to the latter for the purpose of this exposition the following authors illustrate the different currents: professor Kaldor and Mrs. Robinson, and professor Kahn; Sir John Hicks, and professors Wilson and Newlyn; and the Radcliffe Committee. Independent progress has developed around J. Tobin, J.S. Gurley and E.S. Shaw and the Yale School. Fashions change and at different times some of these doctrines have had prevalence over the others. In the early 1960's, during the "Kennedy era", the Radcliffe report for example became of much consequence; but, by the late years of the decade persuasion has come from the Chicago School. The alternative influences spill-over to economic policy and the IMF and ultimately to Latin America.

Professor Friedman's "rebirth" has tried to answer the challange in redifining the quantity theory as a theory of the demand for money -where velocity is determinant- and not as a theory of prices and output; and, made the essence of the theory the existance of a stable functional relation between the quantity of real balances demanded and a limited number of independent variables**. Friedman according to Patinkin, has really presented an elegant exposition of the modern portfolio approach to the demand for money which can only be seen as a continuation of the Keynesian theory of liquidity preference***. Redefinition has led Frieman himself, and Cagan, Meiselman and Miss Schwartz****, to the empirical testing of a stable demand for money. The Keynesian response, of course, has attempted to disprove the findings*****.

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* H. Johnson, Ten years after Radcliffe, unpublised material from the LSE.

** M. Friedman, The optimum quantity of money, Aldine Publishing Co,, Chicago 1969.

*** Professor Johnson also refers one to certain Neo-Keynesian interpretations where the emphasis is on liquid and illiquid assets and this is argued to be compatible with Friedman's "liquidity preference theory". Specifically he mentions the work of A. Leijonhufvud, Keynes and the classics, Inst. of Econ. Affairs, London, 1969.

**** M. Friedman and A.J. Schwartz, A monetary history of the USA, 1867-1960, Princeton Press, 1963; and, P.C. Cagan, Determinants and effects of changes in the stock of money, Columbia University Press, 1965.

***** A summary of the "response" is found in Miss S.K. Edge's, The relative stability of monetary velocity and the investment multiplier (Australian Economic Papers, Dec. 1967) which discusses the works of D.H. Hester, A. Ando and F. Modigliani, M. de Prano and T. Mayer.

Professor Johnson today explains that Friedman's borrowing from Keynes' portfolio-balance analysis presents a difference*. The quantity theory introduces explicitly and emphasize expected changes in the price level as an element in the cost of holding money and other assets fixed as to both capital value and yield in monetary terms, whereas the General Theory starts with the assumption of an actual or expected stable price level (there is nothing, however, from stopping the introduction of an ustable price level into the General Theory, as for example in the case of professor Tobin; or, for the matter, a certain stability in the demand for money). Keynes' assumption is said to be misleading because it encourages the interpretation of changes in the market interest rate on monetary assets as indicators of changes in the ease or tightness, without proper allowance for the effects on the relation between money and real rate of interest of changes in expected rates of inflation and deflation. This criticism makes the essence of the differentiation between the monetarist and the alternative Keynesian approach to economic policy. The monetarist approach stresses the unreliability of money interest rate changes as economic indicators, owing to the influence on them of price expectations, and concentrating instead on changes in the money supply as a variable. Friedman's quantity theory, concludes professor Johnson, has the advantage of freeing it from the Keynesian criticism of assuming an automatic tendency towards full employment, by making it a theory of the demand for money without a commitment to an analysis of prices and employment. This amounts to a disadvantage since it leaves the theory with nothing to say about the relative impact of short-run variations on money, prices, and physical output.

Disbelief in any constancy in the velocity function is well represented by professors Kaldor and Kahn**. Kaldor argues that there are no grounds for such a suposition. He explains that in some countries the velocity is low and in others high, in some it is rising and in others it is falling, without any systematic connection between such differences and movements in the degree of inflationary pressure. Such movements for the author can only be explained by historical developments -institutional factors- and the varying incidence of the policies pursued. Velocity only reflects a relationship and is not determined by factors independent of money or incomes. Thus a change in velocity is not an independent phenomenon but a reflection of a restrictive policy. It is thus a mistake to assume that given the normal frequency of payments the maintenance of any

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* H. Johnson, op. cit.

** R.F. Kahn and N. Kaldor, Committee on the workings of the monetary system, Vol. 3, HMSO, 1960.

given flow of payments requires some definite quantity of money. For the author it is through changes in the rate of interest that changes occur in the demand of money.

Professor Kahn also says that, other things being equal, an increase in money means lower rates of interest, because it means that the banking system is taking larger quantities of securities off the market. It is the lower level of interest rates, not the increase in money, which creates a change. For securing control the rate of interest provides the means. Velocity should be regarded as a passive though variable factor, since the quantity of money held idle is closely related to the level and structure of the rate of interest. Kahn thus believes that velocity is a bogus concept.

The discussion of the Radcliffe Report -and also of the Joint Economic Report of the FRS- on the liquidity of the economy as the key variable for monetary analysis represents the most influential answer to the quantity theory. The Radcliffe Comission concluded that the supply of money is only a part of a wider structure of liquidity in the economy and that the whole liquidity position is what is relevant to spending decisions*. The decisions to spend are not only determined by deposits because there is the alternative of raising funds through the purchase and sale of financial assets as well as credits from non-financial intermediaries. Hence Radcliffe saw little reason to assume that velocity has any "upper limit". The report went on to recommend variations in the rate of interest to influence the selling and holding of liquid assets. The danger of establishing fluctuations in the rate of interest also made them sceptical about the scope of monetary policy in checking inflation, so that the subject then moved to the virtues of fiscal policy **.

Further unorthodox developments have also taken place around professor Tobin, the Gurley-Shaw approach and the Yale School***. For the group monetary theory is a theory of portfolio management by economic units. Its subject matter are stocks of assets and debts (including paper money) and their values and yields. It can be distinguished from branches of economic theory which take the income statement as the accounting framework and flows income, savings, expenditure, and production as the subject matter. One of its major implications is the necessity to regard the structure of interest rates, asset yield, and credit availabilities rather than the quantity of money and the linkage between monetary and financial institutions on the one hand and the real economy on the other. The

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* Radcliffe Report, Committee on the workings of the monetary system, HMSO, 1964.

** A more radical approach is that of I. Little, R. Nield, and A. Rose, Committee on the workings of the monetary system, op. cit.

*** Next page.

distiction is between the financial sector and the real sector (or between stock and flow analysis) rather than between the banking system and the rest of the economy (as the quantity theory will tend to have it) or between liquid and illiquid assets (as in the case of some Neo-Keynesians). The moral of the Theory is that the control of both the banking system and non-financial intermediaries may increase the effectiveness of monetary policy and, at the same time protect the interest- cost of public debt. The critical issue is whether the relationship (deduced from the maximizing behaviour of all economic sector) in the financial sector are stable enough to permit changes in the supply of money to be used to analize and predict changes in the real sector (output and prices) or whether a detailed understanding of the financial sector and the effects of monetary changes on the structure of interest rates, asset yields, and credit availabilities is a pre-requisite.

Not all Neo-Keynesians have been sceptical about a certain stability in the demand for money function. That is, if the transactions-precautionary and speculative motives could be separated then the income motive would be a function of the level of income which, through liquidity controls, could contribute to the stabilization of the demand for money transactions, while the unstable speculative motive would be a function of the rate of interest. Professor Newlyn, for example, writes that the demand for money is a function of the level of interest rates and variations in the ratio of money to income should be associated with changes in the interest rate*. A specialized exchange economy necessarily involves the holding of a medium of exchange over time; and time must set some finite limit to the velocity of circulation and the more the interest rate is prevented from rising by variations the lower the limit will be. Expenditure, on the other hand, requires that money is provided by someone and the less there is of it in relation to expenditure being attempted the greater the probability that it will not be available in the time and place required. Newlyn's concern for liquidity controls is a consequence of his commitment to a full employment and a public debt management constraints.

Thepossibility of encouraging a certain stability in the demand for money for transactions -as a consequence of Keynesian economics- has also been dealt

*** J. Tobin among other, Money, capital, and other stores of value, Am. Econ. Rev. May, 1961; and G. Gurley and E.S. Shaw, Money in a theory of finance, Enthoven, Washington, 1960.

* W.T. Newlyn, Theory of money, Clarendon Press, Oxford, 1962.

by professor Wilson*. For the author the real question is, more than to assume an upper limit to velocity, a careful definition of liquidity. The important issue is the relationship between the level of expenditure (transactions) and the level of liquid assets desired; together with the question of how the desire for liquidity will be affected by changes in the interest rate. It has been rightly argued that marginal reductions in the supply of money will be off-set by increases in velocity. But for Wilson it is wrong to assume that nothing can be achieved by controlling the volume of deposits. It can be argued that if deposits are liable to be used more actively so much the better reason for controlling the volume rigorously. The Radcliffe Report, however, went on to argue that the control on the supply of money would drive borrowers to less liquid assets; that is, to the stock market and other-than-bank financial intermediaries. Professor Wilson has argued that liquidity has to be defined more carefully; financial assets and deposits plus currency are not the same t ing; the liquidity of the former is considerably less so that liquidity involves a cost. The inconvenience and cost would grow if deposits were cbsely controled. Of course, no one cannot put a numerical upper limit to velocity but it is reasonable to suppose that the cost and inconvenience will tend to grow as velocity rises. If despite its greater cost, borrowers and lenders take to the long run and stock markets, here not all institutions will afford the cost of new floatings; but, if they can, capital issues controls may be introduced. Moreover trade credit-whose importance is secondary -can also be contained through hire-purchase controls, although they may have a once-and-for-all effect. With respect to stock exchange transactions with existing assets a liquidity control would imply a fall in share prices and, in the money market, a rise in interest rates, for example in demand deposits.

The purpose of the above comments has been to state a background for the discussion on "Latin America's velocity". For the moment, however, the interest is more on the causes of inflation rather than on its policy cures. That is, in a Latin-american inflationary setting -where one is interested in the deman-pull and/or cost-push origin of the inflation and the inflationary spiral itself- what has been the behaviour of velocity? Grossly over-simplifying the - variable could behave in several ways:

1.- As the supply of money (defined rather rigorously) increases, velocity remains nearly constant and inflation proceeds. In such a case, other things being equal, and initially, inflation may be checked by global monetary measures

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* T. Wilson, Inflation, Blackwell, Oxford, 1961.

(the monetarist thesis).

2.- As the supply of money is raised velocity also increases -the extreme situation being hyper-inflation. In such a case, other things being equal, a fall in the creation of money would result in a fall in velocity. The implications of the assumption are, at least, twofold:

(a) A liquidity control would check inflation

(b) It might be necessary to assume an upper limit to velocity, however hazy.

3.- A contraction in the supply of money -or a reduction in its rate of increase- results in an increase in velocity. In such a case inflation may not be checked and prices may behave rather anarchically. The implications of the assumption are rather complex:

(a) It may be necessary to widen the definition of the supply of money and include quasi-moneys plus less liquid assets. Something which in turn would involve a careful definition of liquidity, as well as the introduction of both orthodox and selective controls. In such a way that rising velocity becomes inconvenient and costly and stability in the demand for money for transactions becomes increasingly desirable and, together with liquidity controls and interest rate variations, checks inflation. The question remains whether variations in the interest rates will not result in severe fluctuations which will defeat the stabilization effort.

(b) A wider definition of liquidity may result in the impossibility of reducing velocity as monetary controls are introduced. A cautious implication of the assumption would be that monetary policy alone is uncapable of checking inflation. If the passivity in the response of the supply of money were adopted, its control would then come from the variations in the interest rate approach. Still, the subject has moved on to fiscal policy, institutional changes (as in the case of structuralism) or the "inevitability of inflation".

4.- With respect to Latin America's inflation, -the frequent inability to contain it and the fact that it has not degenerated further into hyper-inflation- another relationship may be assumed:

(a) In a first stage (which is inflationary) an increase in the supply of money leaves velocity nearly constant (the implicit monetarist position).

(b) In a second stage, when global monetary controls are introduced, a contraction or a reduction in the rate of increase- which may be marginal- leads to a noticeable increase in velocity and inflation manages to continue (the implicit structuralist position).

(c) In a third stage, when selective controls are introduced, a contraction should lead to a decline in velocity and inflation is reduced. If this does not occur several explanations may have to be ventured..

(d) The stage would be one where money and velocity are rising. Or, alternatively, that severer controls in the money market still result in increases in velocity or else plunge the economy into a deflation unacceptable from the political and social points of view. The capital market may be relatively underdeveloped and incapable of influencing the deman for money. The importance of the "financial external sector" as a source of liquidity or illiquidity may be rather decissive.

(ii) An empirical description of the behaviour of income velocity of circulation

It has to be granted that from the previous simplistic exercise -monetarists have an initial case with the unindustrialized countries of the group, Bolivia and Paraguay but also with Brazil and Uruguay. The Bolivian case might have very well illustrated the thesis were it not for the lack of adequate statistics. It should be noted that, during our period of study, the 1952 revolution took place and proper data become nonexistent. Still, it is a well known fact that the almost hyper-inflation of the 1950's in this country was "caused" by the central bank. Inflation started to gallop in 1952. By 1956 the government of president Paz Estenssoro adopted a severe stabilization programme with emphasis on monetary restraint and with the support of the United States government. Inflation, nontheless, continued to gallop until 1960, but after that price increases were greatly reduced. It was thus claimed -probably rightly so- that the policy was successful (see Table I again)*.

Turning to Table A (and to the set of graphs) one is first reminded of professor Kaldor's warning the experience has been for velocity to move in various directions without any apparent connection with the degree of inflationary pressure. Moreover, the ratio of income to money plus quasi-money can extend from a floor of (1.7 in Argentina to a limit of 11.4 in Paraguay. The explanation of these regional differences imbedded in historical institutional arrangements- are still a subject to be developed in the context of inter-country comparative analysis. What is particularly puzzling is that it may not be claimed that the more developed financial systems have a lower ratio, and viceversa. Chile's

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* For an introduction into the subject see again C. Zondag, op. cit. Structuralists, on the other hand, have claimed, that if inflation gave way it was because of the considerable recovery in agriculture and tin exports plus the large credits and aid from the United States that enabed Bolivia to avoid further devaluations and to cover public expenditure which in other circumstances would have let to huge public deficits. Moreover, the democratic regime fell to Colonel Barrien-to's dictatorship which could further enhanse monetary restrain.

a) TABLE A b)

Inflation (P) and Income-Velocity of Circulation with respect to the supply of money (M), and quasi money (QM) 1948-1965.

Years	Argentina				Brazil				Chile				Colombia			
	P	GNP/M	GNP M+QM	QMas % of GNP	P	GNP M	GNP M+QM	QMas% of GNP	P	GNP M	GNP M+QM	QMas% ofGNP	P	GNP M	GNP M+QM	QMas %ofGNP
1948	14	2.6	1.8	17.8	18	3.8	2.8	8.7	18	8.5	6.3	4.1	16	-	-	-
1949	29	2.5	1.7	18.7	10	3.7	2.8	8.4	20	-	-	-	7	-	-	-
1950	33	2.5	1.8	17.2	4	3.2	2.6	7.6	17	9.1	6.9	3.4	21	8.0	7.0	1.8
1951	33	2.9	2.1	12.9	8	3.3	2.7	6.6	29	8.7	6.8	3.3	9	7.8	6.7	2.1
1952	38	2.9	2.1	12.4	25	3.4	2.8	6.0	22	8.9	7.1	2.8	-3	7.3	6.3	2.1
1953	5	2.6	1.9	13.3	20	3.4	2.9	5.2	18	7.1	5.9	3.0	8	6.9	6.0	2.0
1954	4	2.4c)	1.8	14.1	19	3.5	3.1	4.5	77	7.8	6.7	2.3	9	6.9	5.7	3.0
1955	13	2.4d)	1.8	13.8	20	3.9	3.4	3.5	74	11.0	9.4	1.6	-1.4	6.9	5.5	3.8
1956	13	2.5	1.9	14.0	22	4.0	3.6	2.8	58	12.6	10.5	1.5	7	6.2	4.6	5.7
1957	25.5	2.8	2.1	13.0	19	3.6	3.3	2.8	25	13.7	11.2	1.7	14	6.4	5.1	3.7
1958	32	2.7	2.0	12.8	15	3.7	3.4	2.5	27	13.2	10.6	1.8	7	6.2	5.2	3.2
1959	114	3.6	2.8	7.4	37	3.5	3.3	2.2	39	13.9	8.9	4.0	4	6.4	5.3	3.3
1960	27	3.6	2.8	7.7	35	3.4	3.2	2.4	12	12.3	8.0	4.5	6	6.6	5.4	3.2
1961	14	3.8	2.9	8.1	38	3.4	3.2	1.9	8	12.4	7.7	5.0	9	6.0	5.0	3.4
1962	38	5.6	4.2	6.1	52	3.2	3.2	1.3	14	11.4	6.8	6.1	3	5.5	4.5	4.2
1963	24	5.4	3.9	7.2	75	3.4	3.3	1.1	45	11.0	6.6	5.6	32	6.3	4.9	4.3
1964	22	5.1	3.7	7.6	85	3.6	3.5	0.9	46	10.2	6.4	5.8	17	6.4	5.1	4.1
1965	29	5.4	3.9	7.5	61	3.3	3.2	0.9	28	9.4	6.1	5.7	4	6.2	4.7	4.9

a) Source: IFS, IMF

b) Money in all cases is equal to reserve money plus demand deposits minus currency in commercial bankers deposits. Differences were found in the supply of money and quasi money between several sources (Central Bank Bulletins, the IMF and the UN) which were not insignificant (on occasions more than 5%). The difference could be accounted - continued -

	PERU				URUGUAY				MEXICO				ECUADOR				PARAGUAY			
	P	GNP M	GNP M+QM	QM as % of GNP	P	GNP M	GNP M+QM	QM as % of GNP	P	GNP M	GNP M+QM	QM as % of GNP	P	GNP M	GNP M+QM	QM as % of GNP	P	GNP M	GNP M+QM	QM as % of GNP
1948	30	5.3	3.8	7.4	2	-	-	-	6	7.9	6.2	3.5	-	-	-	-	-	-	-	-
1949	13	7.3	4.8	6.9	6	-	-	-	6.	7.8	6.1	3.6	-	-	-	-	-	-	-	-
1950	14	7.7	4.9	7.6	-5	-	-	-	4	6.5	5.3	3.5	0	7.8	6.5	2.5	-	6.0	-	-
1951	10	7.8	5.2	6.5	15	-	-	-	13	7.5	6.0	3.3	12	9.1	7.6	2.1	-	6.0	-	-
1952	6	7.7	4.9	7.3	15	-	-	-	15	8.1	6.3	3.4	3	8.1	7.0	2.1	11I	8.2	7.6	1.0
1953	9	7.3	4.2	7.6	6	-	-	-	-3	7.3	5.5	4.5	0	8.3	6.9	2.5	73	9.1	8.4	1.0
1954	5	7.4	4.7	8.0	12	-	-	-	6	7.9	5.9	4.2	3	8.0	6.6	2.7	20	10.1	9.3	0.9
1955	5	8.0	4.7	8.8	8	6.6	2.6	20.6	16	8.1	6.2	3.8	2	9.0	7.0	3.3	24	9.3	8.2	1.4
1956	5	7.5	4.4	9.4	7	5.5	2.6	20.4	4	8.3	6.2	4.1	-5	8.0	6.2	3.6	21	9.2	8.8	0.5
1957	8	7.7	4.3	10.2	15	6.3	2.9	18.2	6	8.9	6.5	4.2	0	8.2	6.2	4.0	16	11.4	10.6	0.7
1958	8	7.9	4.4	10.0	I8	5.1	2.6	19.4	12	9.3	6.9	3.6	2	8.6	6.7	3.2	6	11.0	10.3	0.6
1959	13	7.3	4.6	9.3	40	4.9	2.7	16.6	2	8.6	6.6	3.6	0	8.0	6.2	3.5	10	11.2	10.3	0.9
1960	8	7.8	4.6	9.1	39	5.6	3.5	12.7	6	8.6	6.7	3.6	3	7.9	6.2	3.4	8	12.9	11.4	1.0
1961	7	8.0	4.7	8.7	22	5.9	3.4	12.3	1	8.9	6.7	3.6	2	8.2	6.1	4.1	18	11.7	10.1	1.3
1962	5	8.9	4.7	9.8	11	5.7	3.1	14.3	1	8.5	6.6	3.3	4	7.8	5.8	4.4	1	13.1	10.6	1.9
1963	7	8.7	4.4	11.2	21	6.1	3.4	13.0	1	7.9	6.1	3.8	3	7.6	5.1	4.5	2	13.0	9.8	2.5
1964	8	9.0	4.4	11.6	43	5.8	3.4	12.2	3	7.9	6.6	3.9	6	7.4	5.7	4.1	1	11.3	8.2	3.4
1965	16	9.4	4.4	11.8	56	5.0	2.8	15.1	4	8.0	6.1	4.1	3	8.1	6.0	4.3	4	11.2	7.6	4.1

for by the components of the variables; no suitable explanation, however, was given by the sources; except in the case of the IMF.

c) Quasi-money in Argentina, Brazil, Chile and Paraguay -as defined by the monetary authorities- is equal to time and saving deposits plus central bank quasi-monetary liabilities. Quasi-money in Colombia, Ecuador, Peru and Mexico also incluses foreign currency deposits.

d) Years underlined indicate a price stabilization objective, whether the programme was successful or not.

TABLE A (Continued)

Years	Peru				Uruguay				Mexico			
	P	GNP M m	GNP M+QM	QMas% ofGNP	P	GNP M	GNP M+QM	QMas% ofGNP	P	GNP M	GNP M+QM	QMas% of GNP
1948	30	5.3	3.8	7.4	2	-	-	-	6	7.9	6.2	3.5
1949	13	7.3	4.8	6.9=	6	-	-	-	6	7.8	6.1	3.6
1950	14	7.7	4.9	7.6	-5	-	-	-	13	7.5	6.0	3.3
1951	10	7.8	5.2	6.5	15	-	-	-	15	8.1	6.3	3.4
1953	9	7.3	4.2	7.6	6	-	-	-	-3	7.3	5.5	4.5
1954	5	7.4	4.7	8.0	12	-	-	-	6	7.9	5.9	4.2
1955	5	8.0	4.&	8.8	8	5.6	2.6	20.6	16	8.1	6.2	3.8
1956	5	7.5	4.4	9.4	7	5.5	2.6	20.4	4	8.3	6.2	4.1
1957	8	7.7	4.3	10.2	15	6.3	2.9	18.2	6	8.9	6.5	4.2
1958	8	7.9	4.4	10.0	18	5.1	2.6	19.4	12	9.3	6.9	3.6
1959	13	7.3	4.6	9.3	40	4.9	2.7	16.6	2	8.6	6.6	3.6
1960	8	7.8	4.6	9.1	39	5.6	3.5	12.7	6	8.6	6.7	3.6
1961	7	8.0	4.7	8.7	22	5.9	3.4	12.3	1	8.9	6.7	3.6
1962	5	8.9	4.7	9.8	11	5.7	3.1	14.3	1	7.9	6.1	3.8
1963	7	8.7	4.4	11.2	21	6.1	3.4	13.0	1	7.9	6.1	3.8
1964	8	9.0	4.4	11.6	43	5.8	3.4	12.2	3	7.9	6.0	3.9
1965	16	9.4	4.4	11.8	56	5.0	2.8	15.1	4	8.0	6.1	4.1

for by the components of the variables; no suitable explatation, however, was given by the sources; except in the case of the IMF.

c) Quasi money in Argentina, Brazil, Chile and Paraguay -as defined by the monetary authorities- is equal to time and saving deposits plus central bank quasi-monetary liabilities. Quasi-money in Colombia, Ecuador, Peru and Mexico also includes foreign currency deposits.

DISREGARD

DIAGRAMA

Velocity of Circulation (GNP/M), 1948-1965

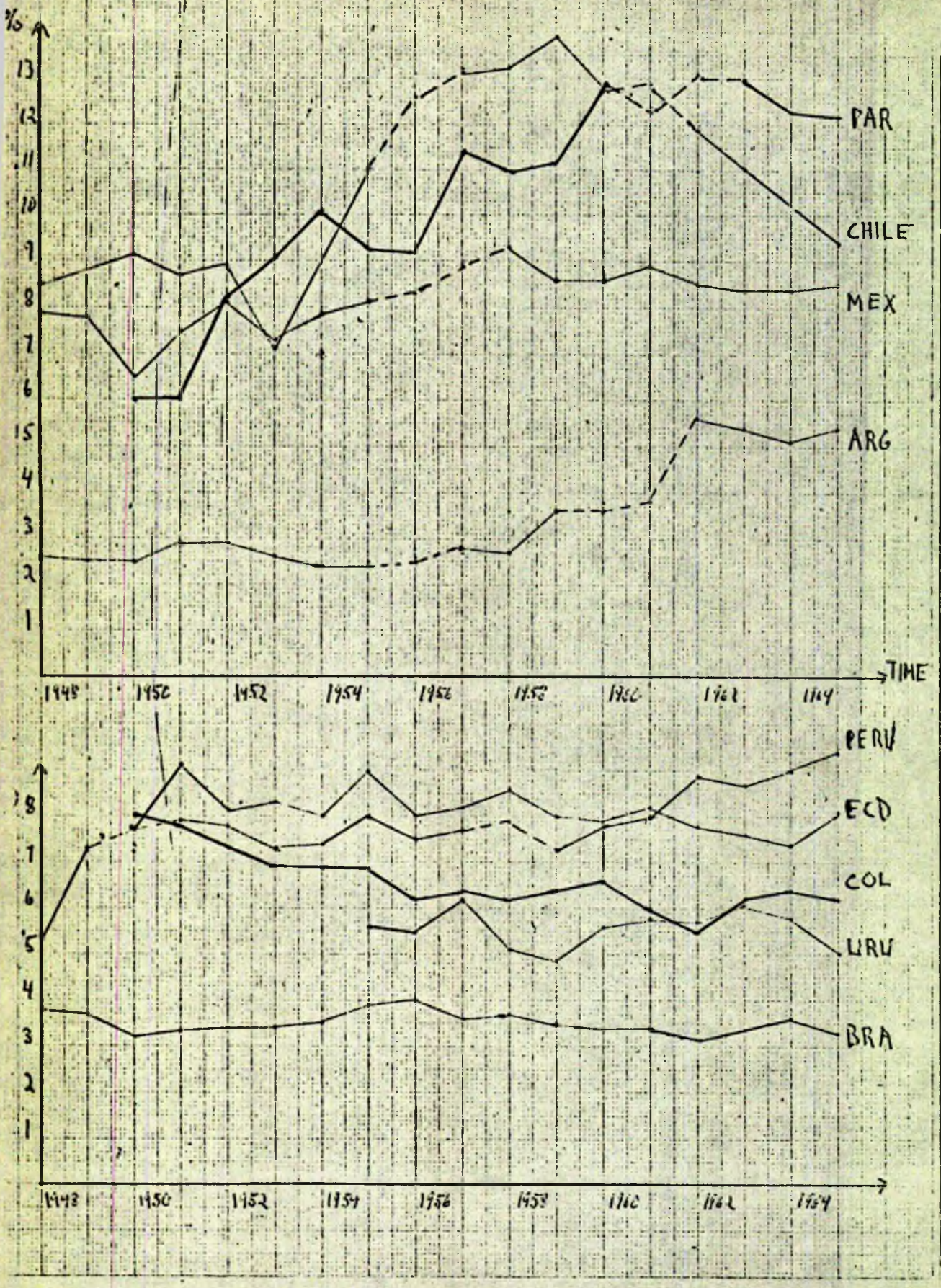
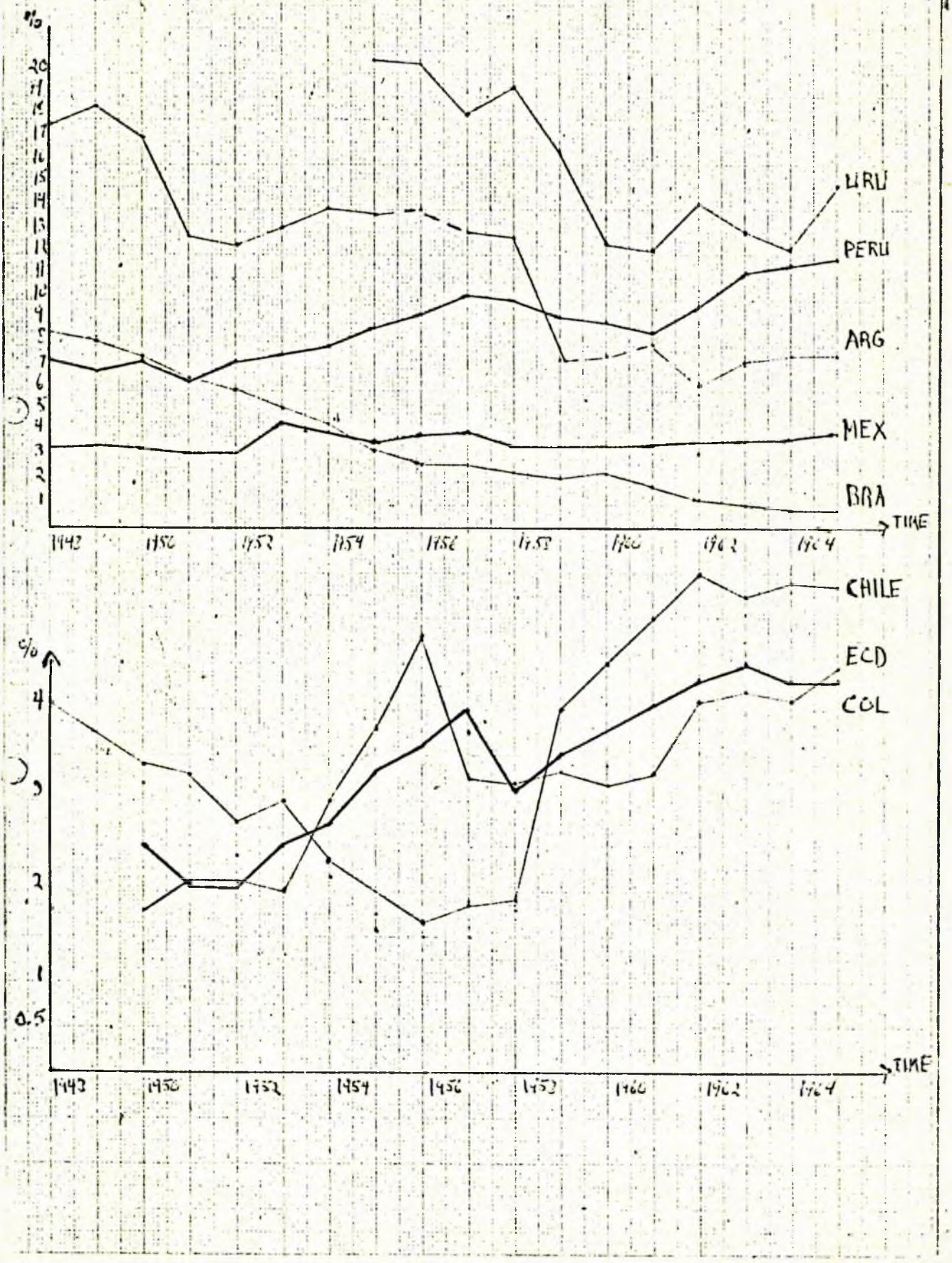


DIAGRAM A

Quasi-money as % of GNP, 1948 – 1965



financial markets are relatively sophisticated and velocity is high, while Peru's are rather backward and velocity is much lower.

Certain patterns, however, may be distinguished in a setting where the experience has been one of sharp and continuous increases in money (turn back to Table I). In Brazil and Uruguay, as it was said, velocity has remainded relatively stable -and they are two of the most inflationary countries. Colombia presents fluctuating price increases with a considerable fall in velocity. The rest of the countries have considerable increases in velocity, at least in the greater number of years during the period, with different degrees of inflationary pressure. But, resuming, if year to year comparisons are made, it is clear that velocity has been rather unstable for the group as a whole. A simplistic assumption could be adopted if it were true that the more severe the inflation the faster the increases in velocity. But this is not apparent. It is worth insisting that Brazil with the worst inflation has the most stable ratio, while Mexico with a much milder inflation has had considerable rises in velocity. The core of the matter, moreover, could very well be one where in a setting -characterized by rapidly depreciating money- velocity has not increased beyond rather tolerable bounds. These are the questions that have to be answered. Why has velocity been unstable and why, at the same time, fluctuating increases have been rather mild considering the trend in prices? The attempt to produce an answer really has to rest on the financial arrangements of these countries; the differences between the practices in the countries; and, the incidence of the policies pursued, where the final aim should be to distinguish between "nominal or theoretical" practices and the "real" determinants in the demand for money.

Before trying to understand some aspects of the behaviour of the money and capital markets, it is convenient to try to define more closely the nature of the instability in velocity and inflation. Having observed the instability in currency and demand deposits, three other indicators may be useful in this respect; the trend in time deposits, the importance of foreign assets and foreign currency deposits (FCD); and the likely effects of stabilization programmes.

When velocity is seen purely in terms of the trend in time deposits (quasi-money as a % of GNP in Table A and the subsequent graphs) the increasing velocity becomes more clear. In Argentina and Brazil, the most inflationary countries of the group, the importance of time deposits has fallen most severely*. Chile and Uruguay are just as inflationary and yet time deposits have decreased

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* In Paraguay, which is perhaps the most underdeveloped country of the group, time deposits have never had any importance.

less. The milder velocity is only apparent, since in the former time deposits include FCD, while in the latter they do not. Thus in Chile and Uruguay increasing velocity is somewhat concealed or averted by such deposits (more of this below). This assumption is also valid for the less inflationary countries (Colombia, Peru, Mexico and Ecuador) -inflation being milder the velocity in such deposits has been lower. Moreover, in the first three countries FCD have gained importance and contributed to disguise the velocity trend in money. The importance of Mexican time deposits is rather small considering the relative sophistication of the financial market. This is however due to the growing importance of public and private bonds whose development responds to various factors, but one being increasin price stability.

In Table B the comparison between velocity and FCD, as well as with the net foreign asset position*, has been made. Since in Argentina and Brazil official FCD do not exist, it is not possible to judge their impact on velocity (an answer would require research into the effect of the black market). Still, at this stage one is left with a bewildering alternative: with similar inflationary settings and external financial positions velocity has doubled in Argentina, while in Brazil the increase is relatively marginal**.

On the other hand, the increasing importance of FCD in Uruguay seems to explain some of the smaller increases in velocity. Also, FCD have grown pari passu with a fall in velocity in Colombia. And their importance is considerable in Mexico, Chile, and Peru. It is, however, hardly possible to establish a statistical relationship between the two variables, since the behaviour of FCD, besides inflation, is influenced by the varying controls of the authorities and, what is fundamental, by expectations about devaluation. In Mexico, for example, when devaluation was further feared during 1955-1958, FCD increased, velocity was high in demand deposits, and inflation considerable. When expectations changed for the better after 1960, all three variable started to fall. Ecuador, with the mildest inflation and unfrequent devaluations, may illustrate why FCD have been so low (Ecuador, of course, is also a very poor country).

A general relationship seems to exist between net foreign assets and the inflationary process (turn again to Table B). In all cases the deterioration of external financial positions is associated with the persistance or acceleration of inflation. Ecuador, the country with the mildest inflation, is also the one with the best relative reserve of foreign assets. It is unfortunate that Peru

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* It includes Central Banks' and Commercial Banks' foreign assets.

** A fundamental comparative study could be made here. The first explanation may lie with Brazil's permissive monetary policies and Argentina's contradictory monetary restraint (see Part III, Chapter 2 and case study).

TABLE B

Foreign Assets (FA), Foreign Currency Deposits (FCD), Velocity (V), and Prices (P) 1948 - 1965 (%)

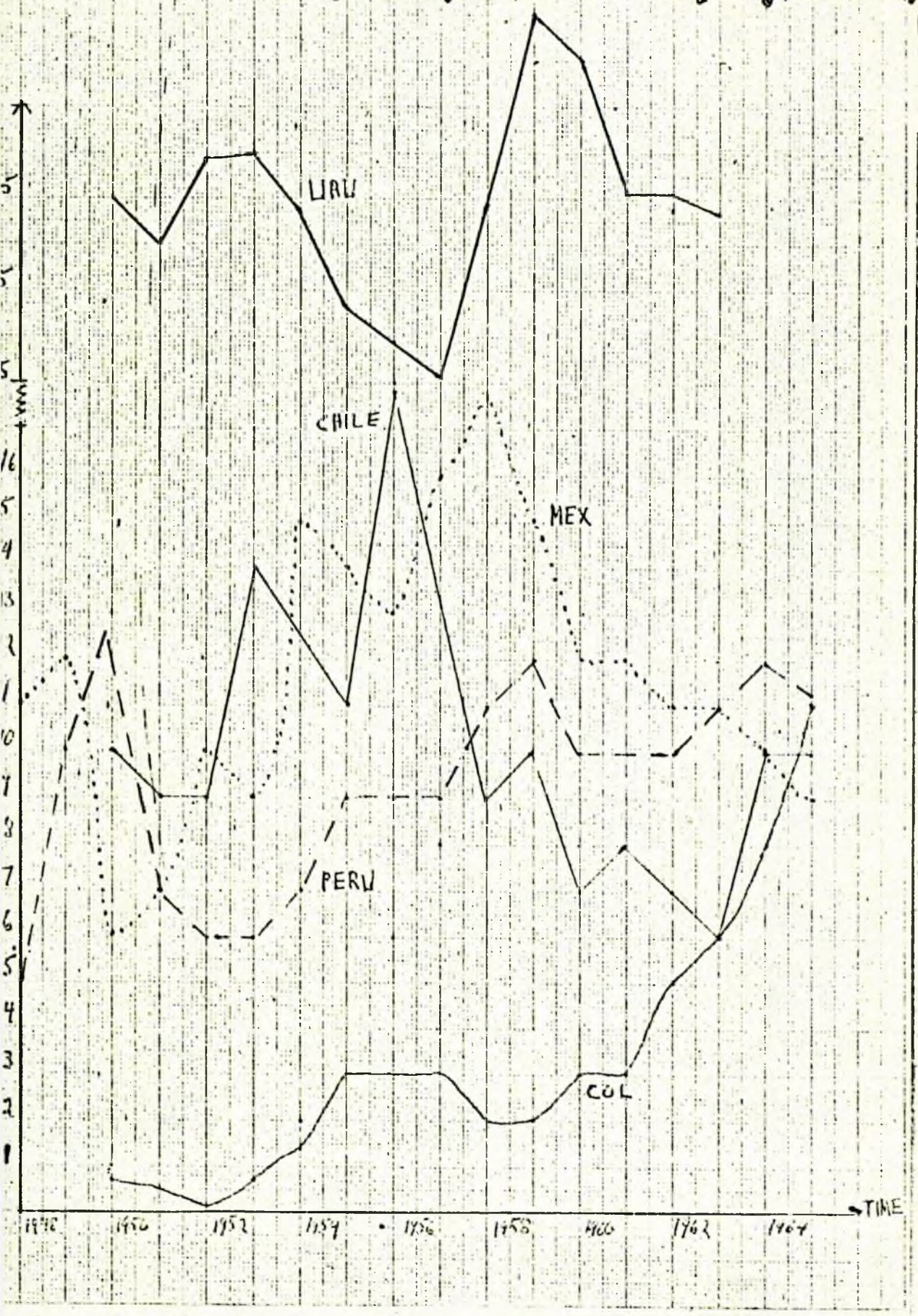
Country / Year	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina																		
NFA as % of M+QM	10	7	9	6	2	5	4	3	5	3	Neg.	3	8	2	Neg.	Neg.	Neg.	1
V	1.8	1.7	1.8	2.1	2.1	1.9	1.8	1.8	1.9	2.1	2.0	2.8	2.8	2.9	4.2	3.9	3.7	3.4
P	14	29	33	33	38	5	4	13	12	25	32	114	27	14	38	24	23	29
Brazil																		
NFA	22	17	12	8	5	0	Neg.	Neg.	0.4	Neg.	Neg.	Meg.	Neg.	1	1	1	1	0.8
V	2.8	2.8	2.6	2.7	2.8	2.9	3.1	3.4	3.6	3.3	3.4	3.3	3.2	3.2	3.2	3.3	3.5	3.2
P	18	10	4	8	25	20	19	20	22	19	15	37	35	38	52	75	85	61
Chile																		
NFA	-	-	-	-	-	-	-	8	8	3	2	1	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
FCD as % of M+QM	-	-	10	8	8	14	7	11	13	8	9	10	7	8	7	6	10	10
V	6.3	-	6.0	6.8	7.1	5.9	6.7	12.4	10.5	11.2	10.6	8.9	8.0	7.7	6.8	6.6	6.4	6.1
P	18	20	17	29	22	18	77	74	58	25	27	39	12	8	14	45	46	28
Colombia																		
NFA as % of M+QM	-	-	18	18	20	21	20	8	10	Neg.	Neg.	1	1	Neg.	Neg.	Neg.	Neg.	Neg.
FCD	-	-	0.7	0.5	0.1	0.7	1.4	3	6	3	2	2	3	3	5	6	8	11
V	-	-	7.0	6.7	6.3	6.0	5.7	5.5	4.6	5.1	5.2	5.3	5.4	5.0	4.5	4.9	5.1	4.7
P	-	-	21	9	-3	8	9	-1.4	7	14	7	4	6	9	3	32	17	4
Peru																		
Gross FA	14	26	26	24	20	17	20	18	19	16	8	16	22	27	26	27	27	25
FCD	5	10	13	7	6	6	2	9	9	9	11	12	10	10	10	11	12	11
V	3.8	4.8	4.9	5.2	4.9	4.2	4.7	4.7	4.4	4.3	4.4	4.6	4.6	4.7	4.7	4.4	4.4	4.4
P	30	13	14	10	6	9	5	5	5	8	8	13	8	7	5	7	8	16

-continued-

Country	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Uruguay																		
NFA	-	-	33	22	26	28	19	10	11	4	5	14	21	23	Neg	5	Neg	Neg.
FCD	-	-	45	40	49	50	42	32	29	26	44	68	55	46	46	43	-	-
V	-	-	-	-	-	-	-	2.6	2.6	2.9	2.6	2.7	3.5	3.4	3.1	3.4	3.4	2.8
P	2	6	-5	15	15	6	12	8	7	15	18	40	39	22	11	21	43	56
Mexico																		
Gross Fa	13	21	32	31	28	30	24	41	42	36	30	31	24	22	21	24	22	18
FCD	11	12	6	7	10	9	15	14	13	16	20	15	12	12	11	11	10	9
V	6.2	6.1	5.3	6.0	6.3	5.5	5.9	6.2	6.2	6.5	6.9	6.6	6.7	6.7	6.6	6.1	6.0	6.1
P	6	6	4	13	15	-3	6	16	4	6	12	2	6	1	1	1	3	4
Ecuador																		
NFA	-	-	51	45	52	41	36	25	24	25	28	30	25	17	23	27	28	19
FCD	-	-0.5	0.5	0.8	0.5	1.0	0.5	0.3	0.2	4	3	4	4	0.6	1	2	1	-
V	-	-	6.5	7.6	7.0	6.9	5.6	7.0	6.2	6.2	6.7	6.2	6.2	6.1	5.8	5.1	5.7	6.0
P	-	-	0	12	3	0	3	2	-5	0	2	0	3	2	4	3	6	3
Bolivia																		
NFA	-	-	36	42	33	23	13	6	Neg	Neg	Neg	Neg	Neg	Neg	Neg	Neg	19	31
FCD	-	-	3	3	3	2	0.7	0.7	0.2	2	1	0.6	1.5	1.4	2	1.5	2.1	1.3
P	-	-	0	0	100	100	125	78	181	116	3	20	12	8	6	-1	11	6
Paraguay																		
NFA	-	-	-	-	10	5	2	6	22	20	9	Neg	Neg	Neg	Neg	2	8	13
V	-	-	-	-	7.6	8.4	9.3	8.2	8.8	10.6	10.3	10.3	11.4	10.1	10.6	9.8	8.2	7.6
P	-	-	-	-	117	73	20	20	21	16	6	10	8	10	1	2	1	4

Source: IFS, IMF, 1966-68

DIAGRAM B : Foreign Currency Deposits (FCD) as a % of Money plus Quasi-money



and Mexico, intermediate cases, do not publish their net foreign asset position. However, it is a well known fact that, after periodic crises, their position has been remarkably superior to that of the others (the subject is descussed in Chapter 3, section b).

An interesting indicator that may explain increses in velocity may be the incidence of stabilization programmes on the demand of money (although the programmes may been reduced the supply of money only in marginal terms and ineffective in reducing prices over the medium and long runs). In Tables A and B years when monetary controls and budgetary restrain were the main objective of economic policy have been underlined together with their correspondieng velocity* (see also the graphs). It is presumably by no coincidence that during those years of monetary restrain (although they might have been mild restrains and often frustrated ones) velocity increased very noticeably in Chile, Peru, Mexico, Ecuador Paraguay an only less so in Argentina (whose velocity has "just" kept on increasing). While on the other hand, in those countries -Brazil, Uruguay and Colombia- where monetary restraint was not (generalizing) the official policy of authorities, either velocity remainded rather constant or it fell, as in Colombia. It ought to be clarified that Brazil "intended" two stabilization programmes: one in 1955-56 and a second which started late 1963. But the first one was regarded as a fiasco, while the effects of the second and severer one cannot be judged within the period of this study**.

With respect to the effects of the programmes on price increase the picture is rather disquieting. In the cases of Argentina and Chile inflation and velocity increased (although there was a brief respite in Chile from 1960 to 1963, when nontheless velocity was high). The situation is similar in Peru, although milder the trend in both variables (it should be noted that Peru was fortunate to have an export boom in 1960-1963, after its stabilization programme of 1958-1959) (see case studies). In Mexico, however, the turn was for the better. During the years of stabilization (1955-58) -although the term as such was not used- there was a sharp increase in velocity, higher price increases, and FCD continued to rise. But after 1959 prices and velocity started to fall in tune. This was accompanied by monetary increases, a high industrial rate of growth, and an inflow of foreign capital***.

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* The selection of these years, more than on quantitative measures, has been based on the declarations of Governments on economic policy objectives (The subject is discussed in Part III, Chapter 2 and based on the case study readings recommended in the bibliography).

** See ECLA, The revolution of economic policy in Brazil and Chile in Econ. Surv. of. L.A, UN, NY, 1966.

*** Structuralists claim that this was not fundamentally a consequence of monetary controls, but of the long-run structural changes the economy had been undergoing in public investment, agriculture, industry, tourism and foreign investment.

(iii) Some determinants of the demand for money and financial assets.

Having established that velocity has been increasing in the region, the question remains why, in the face of continued monetary depreciation, velocity wa not indeed higher. Why was the demand for money in the form of transaction balances not further reduced by the different degrees of inflationary pressure? To gain some knowledge of the subject it might be useful to distinguish two close connected stages:

1.- The institutional setting in which money markets have developed in these countries; accounting for the different degrees of financial evolution the different countries have reached by the early 1960's. That is, the peculiar arrangements that aim at the control of money through the liquidity and interest rate effects and the scope of regulating government bodies.

2.- The behaviour of money is further determined by the degree of development -or underdevelopment- of the bond market, the stock market, stock exchange transactions and the peculiar institutional arrangements in these markets.

The subject may be approached taking the following steps, and trying to describe them in the context of institutional arrangements:

A - Some further comments on the money market.
B - A description of the peculiarities of the bond market.
C - The stock exchange.
D - The nominal structure of the rate of interes*.

(A)

It is convenient to emphasise that the growth of demand and time deposits in Latin America is a relatively recent historical development. It may be argued that only after the Great Depression and during World War II did the financial systems advance into the extensive use of more diversified means of payment**. Different countries have arrived to the reliance on demand deposits, quasi-money and sophisticated banking services at different times throughout the century. Th is particularly interesting because even today these countries illustrate the different stages through which a Latin-american country develops its financial institutions. Grossly over-simplifying, Argentina, Chile and Uruguay had an ear

* The exercise abstracts from the implications of budget deficit financing and the debt management constrains. This is discussed separately in the next section and in Chapter 3, section D.

** An introduction into the subject is found in F. Tamagna, La banca central en América Latina, CEMLA, Mexico City, 1963.

start during the turn of the century, Mexico, Brazil and Colombia began their more elaborate developments during the 1930's (while Mexican institutions have developed faster during the past thirty years and reached a relatively superior stage by the 1960's*); Peru's financial diversification only started in the 1940's and still remains relatively backward; while in Ecuador, Bolivia and Paraguay the financial markets are still very underdeveloped. It is worth pointing out the obvious, in the inflationary setting that was enhanced during the war, because it may help to explain why velocity remainded thereafter within tolerable bounds. When prices started to increase there was not much effort to cut cash and deposit balances since these had always been traditionally low. The structural change, which took the form of income growth independently from foreign trade and increasing industrialization, presumably demanded growing transaction balances. On the other hand, capital markets were small and few the assets available as substitutes of money. There was a lack of experience to hedge against inflation. The structure of the rate of interest has been rather anarchical, and money dearer than what nominal interest rates indicate. Exchange controls and multiple exchange rate systems were widely used with the effect of making FCD illegal or cumbersome**. The inflationary process was very likely accompanied by a wage lag which retarded the response with which workers could dispose of cash balances (turn to section c).

On the other hand, even today, despite the expansion and diversification of financial institutions and the structure of assets, financial markets are predominantly debt markets rather than for stocks. And within the limited scope of the debt market, short-term transactions predominate. The predominance of the money market -as a characteristic of underdevelopment- is represented by commercial banks as the most important group in the financial structure. Through these banks together with the central bank, flows the major proportion of total financial resources:

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*"Mexico writes D. Shelton, has now played the game of growthmanship in banking for longer (meaning 1948-1963) than most UDC, and she has played it with considerable skill. Her techniques, successes, and failures deserve a wider audience" (pag.114) in Public policy and private enterprise in Mexico, Ed. R. Vernon, Harvard Press, Mass. 1964. Also see R. S. Brothers and L. Solís Mexican financial development, Austin, 1966.

** The Monetary Commission for Latin America (CEMLA) comments that though deposits in foreign exchange are permited in some countries, they are closely controled by the central banks in Los mercados de capitales en América Latina, CEMLA, Mexico City, 1966 (pag 18).

Relative Importance of Commercial an Central Banks within the Banking Systems, 1963 (%).

Country	Ratio between commercial Bank's resources and total	Ratio between central bank resources and total.	Total
Argentina	54.6	32.2	89.8
Brazil(a)	43.2	-	-
Chile	40.9	40.0	80.9
Colombia	38.3	37.1	75.4
Peru	61.0	24.4	85.5
Uruguay	39.6	52.9	92.5
Mexico	30.0	23.7	33.7
Bolivia	13.6	81.7	95.3
Ecuador	30.5	37.2	61.7
Paraguay	37.5	47.8	85.3

Source: CEMLA, op. cit. (a) it does not include the Bank of Brazil.

The absorption of financial resources within these banks is quite predominant (with the exception of Mexico). In commercial banks the main source of funds is represented by demand deposits. Such deposits do not bear interest, except for negligible margins in Brazil and Peru (see Table C). Less important are time deposits which on any event have been eroded by inflation as it was said. Time deposits are considered very liquid: a substantial part fo time and savings deposits can be had by the depositors almost when desired. The interest rate paid varies considerably within the countries, without this meaning that inflationary countries pay higher rates. In fact, considering the rates of inflation the interest is ridiculous. This is with the exception of Mexico and Peru which pay attractive rates, some of which are in dollars (see Table C again).

Most commercial banks operate very closely to the money market. Although on occasions, as in Mexico and Colombia, they operate with long-term bonds (usually forced by the monetary authorities). Hence the system, at least in theory, has a mixed character operating in both the money and capital markets. Participation in long-run paper would enhance liquidity controls. However, their main function is granting short-term credits. The following table shows the proportion of long-term credits in the total.

Mexico has a higher participation in the capital market, but in the rest of the countries the total is very small. The nominal structure of the rate of interest again does not vary very much between these countries, despite the different degrees of inflation. There is also a tendency for higher interest rates

for short-term credits. The main determinant, however is the fact that commercial banks are compelled to purchase certain quantities of long-term public debt (more of this below).

Long-term Investment as a % of Total Credits in Commercial Banks, 1963.

Country	%	Average rate of inflation
Arentina	9.0	21.4
Brazil	1.1	24.0
Chile	7.2	22.6
Colombia	2.2	8.4
Peru	2.0	7.8
Uruguay	5.0	17.4
Mexico	29.0	5.3
Ecuador	33.0[a]	2.1
Paraguay	0.2	14.6

Source: CEPLA, op. cit. and Table C. (a) time deposits as such.

The object of these comments is simply to emphasise the importance of the money market and the unimportance of the capital market in Latin America. To a large extent it is the former market that determines the trends in velocity through the policy measures adopted. Moreover, a qualified definition of liquidity, particularly in an underdeveloped setting, would point out to the major importance of demand deposits and short-term credits (except for Mexico). One can expect that borrowers and lenders have a lesser recourse to the capital market than in other countries. Hence the traditional liquidity effects may be of fundamental consequences for velocity. The fact remains that stabilization measures appear to increase velocity in one way and, paradoxically, deter "at the same time" unlimited increases. The reasons why liquid balances have been maintained to some extent must lie, at least partially, on the monetary measures taken by the authorities: the traditional liquidity ratio, the wide range of reserve requirements and special deposits, the composition of reserves in the asset structure of banks and financial institutions, Bank rate and differentiated real rates of interest, the degree of liquidity other-than deposits financial assets may not possess, and so on. To explain the relevance of these measures it is necessary to see how the bond market has behaved, what has been the influence of the stock exchange, and the effect of the rate of interest.

(B)

Through the growth and diversification of financial institutions Latin America has hoped to create a higher rate of savings that would flow into investment.

TABLE C

Structure of the Nominal Rate of Interest, 1963
(%)

Country	Bank Rate	CREDITS			DEPOSITS		BONDS				Average Rate of Inflation	19633
		Commercial Banks	Investment Banks	Public Banks	Demand	Time	Gv. Paper (over 3 years)	Public Banks	Private Banks	Private Enterprises		
Argentina	4.5	10-15	7-15	15	0	10-15	2-10	2-8	-	-	21.4	24
Brazil	8.0	12	-	-	3	6	4 (a	-	- b	- a b	24.0	75
Chile	14.2	18	7	18	0	7-12	5 , 6-10	5-6	5-10	4 , 5-6 a	22.6	45
Colombia	8.0	12-16	8-12	-	0	1 a	2-9 a	2-6	6-8	5-8 , 9-12 b	8.4	32
Peru	9.5	13	9	7-13	1	3-8, 7	2 , 5-11 a	5-10 b	-	5-9	7.9	7
Uruguay	-	12-14	-	9	0	3-8 a	3-5 , 7 b	4-6 , 7 a	-	- a	17.4	21
Mexico	4.5	14	12	6-10	0	3-4 ,7	3-7 , 8 a	3 ,3-10	4-10	4 ,7-10	5.3	1
Ecuador	-	9-10	7-10	8-9	0	-	2-5 5-10	2-10	7-10	-	2.1	3
Paraguay	-	12	-	9-12	0	3-8	2-4	5-10	-	-	14.6	2

Source: IFS, IMF; Los mercados de capitales en América Latina, CEMLA, 1966; Central Bank Bulletin
a) When in USA Dollars
b) Either in dollars or domestic currency.

Despite the efforts, the capital markets in the majority of these countries are relatively underdeveloped, something which explains their modest contribution made to investment. The number of and variety of financial instruments is reduced and their circulation hardly diversified, as it will be seen below. Operations in the long-term market are small and simplistic; and when they take place is partially in response to compulsory measures taken by the monetary authorities. Operations in the stock exchange are a very small fraction of total transactions in the market and limited to few stocks.

Central Banks in the region are entitled to intervene in the capital market, but the use of open market operations has scarcely any importance. However, Central Banks do absorb a good proportion of government paper, as well as place it through liquidity controls in commercial banks, which in turn represents a very high proportion of total circulation (see Table D). The practice has been also for Central Banks to frequently guarantee, explicit or implicitly, the re-purchase of public assets and, on occassions, the banking of private assets. Specifically, the Central Bank -or special "commisions" created for the purpose- has intervened in the bond market so as to prevent excessive fluctuations in prices and to support liquidity. Not all Central Banks publish specifications about the range and scope of their powers -the following comments may, however illustrate their intervention in the capital market *.

1.- The Banco Central in Argentina has as part of its theoretical role the channeling of financial assets into the long-run market and production investment. Its main tool is the Fondo de Regulación which seeks to support the liquidity of government paper and its price stability.

2.- The Banco Central in Chile may take recourse to open market operations to regulate the monetary system. It has the role of selling and buying public securities with direct or indirect state guarantee. It may also buy securities when there is a contraction in the supply of money or when there happens to be another deflationary signs. But, in practice, its intervention in the capital market has been very limited.

3.- The Banco de la República in Colombia may buy or rediscount short and long-term paper, both public and private. It places such securities by compulsion in the commercial bank system. It may also intervene in open market operations with financial assets but so far it has not done so. Credit, besides liquidity controls, is managed also through Bank Rate and differentiated interest rates.

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* See, CEPAL, op. cit. (pags 142-150).

4.- The intervention of the Banco de México in the capital market has as its main objective the role of "influencing the orderly growth of such a market and the channeling of savings towards productive investment". The market, however, is still characterized by a weak stock exchange and a somewhat anarchic structure of the rate of interest, which is not very sensitive to monetary policy. It absorbs public debt in moderate amounts, as a means to encourage infrastructure investment and to maintain an adequate level in the liquidity it creates partially, as well as with other means of payment. The degree of liquidity, from the quantitative point of view, is regulated through special deposits and portfolio composition both in commercial and investment banks. From the qualitative point of view, the banking system is controled through the policy of limiting rediscount and the compulsory investment in certain assets and credits. Its main tools are compulsory deposits, which are said to be a combination of orthodox liquidity ratios, open market operations and rediscount. The bank uses direct measures to limit raises in the rates of interest, so as to channel cheap money into long-run investment. For example time deposits, in commercial and investment banks, has upper limits for interest rate. It has also forced private banks into investing in stock for over two years, and a portfolio which implies a channeling of 70% of savings into production and 30% into trade. Such a variety of controls has contributed to the flow of speculative funds into Financial Societies. On this second type of financial institution the Central Bank, through a securities commision, has tried to channel the resources of Financieras away from the money market.

5.- The Central Banks in Peru, Paraguay and Uruguay limit their intervention to the absorption and backing of public debt. Uruguay, however, has undergone a banking reform in 1964 which introduces special deposits and portfolio guidelines.

6.- CEMLA quotes the Central Bank in Ecuador as saying that in this country the institution does not intervene in the capital market because there is no organize market to channel savings into productive investment.

The important aspect to distinguish, according to CEMLA, is that bonds represent the main instrument to attract savings; and that those floated by the government represent a major part of total circulation*. Even within these assets their small importance as compared with total economic activity may be seen in Table D. It is very relevant to note that over 60% of public bonds are floated by the public sector (except in Mexico). Private floatings of bonds only has importance in Mexico, Colombia, Peru and Chile.

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* See, CEMLA, op. cit. (pag 11).

TABLE D

Floating and Holdings of Bond) Issues in Latin America
1963 (%) (a)

Country	Total(b)	As % of 1963 GNP	FLOATING					HOLDINGS				
			Total	Government Sector c)	Public Banks	Private Banks	Sector Other	Public Sector Government	C. Bank	Other Banks	Private Banks	Sector Other
Argentina	212 675(d	12.3	100.0	98.9	1.1	-	-	59.5	22.5	6.3	5.1	6.6
Brazil	-	-	-	-	-	-	-	-	-	-	-	-
Chile	247	3.0	100.0	75.9	5.6	5.6	18/5	-	49.9	24.0	22.2	3.9
Colombia	3 332	8.0	100.0	72.5	-	25.9	1.6	2.4	39.0	-	21.0	3/ 27.6
P Peru	3 586	4.6	100.0	63.9	16.8	=	19.3	-	-	-	8.4	91.6
Uruguay	4.257	18.9	100.0	66.5	33.5	-	-	38.0	-	12.6	-	49.4
Mexico	25 721	13.3	100.0	34.1	29.3	13.9	22.7	4.9	4.7	4.6	35.6	50.2
Ecuador	2.053	12.1	100.0	48.3	50.9	-	0.8	56.5	0.4	0.6	1.9	40.6
Paraguay	538	1.1	100.0	100.0	-	-	-	-	-	-	-	-

a) SourceÑ: CEMLA, Los Mercados de Capitales en América Latina, 1966.
b) Thousands of millions in domestic currencies.
c) Includes the government sector plus public enterprises
d) It only includes the public sector

The holding of bonds is also very concentrated in the public sector in the most inflationary countries -Argentina, Chile and Uruguay*.

Private purchase of bonds, on the contrary, are much higher in Mexico, Colombia and Peru. The fact that private banks appear to take them up readily in Mexico and Colombia is a result of compulsory measures of the authorities. Nontheless, individuals and non-banking enterprises, purchase them readily in Colombia, Uruguay, Mexico, Ecuador and, particularly so, in Peru. This may be a consequence of the more attractive interest rates these countries offer, some of which are dollar bonds (see Table C). Considering the rates of inflation, this is specially true in Mexico, Peru and Colombia (and all three countries have contained increases in velocity). While in Argentina, where the private sector hardly purchases bonds, velocity has kept on increasing**. In Argentina, Uruguay and Ecuador the public sector absorbs 82%, 56% and 57% respectively. The banking system is predominant in the rest of the countries (with the exception of Peru). The extreme case is Chile where 96% of total bond circulation is absorbed by the Central and private banks. The proportion is also considerable in Colombia (60%) and in Mexico (45%); although in the latter the central bank and public Banks only account for 5%. Peru's private sector acceptance of bonds must be explained by their relatively high rates of interest (see Table C again). The general characteristics in the bond market are a reflection of the Central Bank's policy of guaranteeing public and certain other bonds, of absorption of public debt and liquidity ratios.

The interest rate is usually very variable ranging from 2 to 10%. On average the rates, despite the inflationary pressures, are between 4 and 6% and sometines below the interest paid on time deposits. Such interest rates in Latin America are, however, only nominal. Numerous practices alter the rate, although it is true that where they form part of compulsory purchases they are placed at par value. Some devises that explain their relative acceptance in the private sector are the following***:

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* There was no available data for Brazil; but, according to Dr. Simonsen, the placing of public debt in the public banks is enormous in this country, op. cit. (pag 36). In 1963 the ratio of the money supply to total loans to the government sector was 44%.

** It is unfortunate that comparable data was not available for Brazil because here huge increases in public debt were compatible with stable velocity (prices, of course, have been getting more and more out of hand).

*** Although it should be insisted that, judging by the predominant holdings of the government sector, their voluntary acceptance is quite limited.

1.- In Argentina, for example, there is a Fondo de Regulación for public and private assets which mainly supports the value of government liabilities. Al some public bonds, like "national bonds", which pay interest betwee 2.5 and 10% have a guarantee of re-purchase in five days. Public bonds have also bee used as part of the salary payments to the civil service.

2.- In Brazil they have been used as part payment of income tax (on occasions up to 15% of the total).

3.- In Mexico a striking aspect is that almost every government liability, public bank bonds, and some private sector assets have been given for extended perio of time perfect liquidity. Government bonds have been supported at par for nearly two decades. The situation persists because of total assurance that the Banco de México will support the market in the face of any substantial liquidation. The whole structure usually resembles a "call money" market within out regard to the technical maturity of the instruments employed.

4.- In Chile they sell at below par and are readjusted in value according to the price of gold.

5.- In Chile, Mexico, Peru, Uruguay and Ecuador, governments bonds are also denomi nated in dollars. These floatings especially in Chile and Peru have competed very favourably in the market. In Peru for this reason -together with the fac that institutional investors pay very attractive rates of interest, some of whose bonds are in dollars- the private sector has been attracted to the marke

What is important to clarify is that perhaps some of these practices explain why velocity has not gone beyond certain bonds.

Although the importance of public investment banks and private financial sector bonds, with respect to total economic activity, is still more reduced it is usefull to make a few comments about the prevalent practices. In simple terms these floatings include those that originate in government investment banks and other public institutions, private investment banks, Latin-american Financieras (institutional investors), insurance companies, and private enterprises, whose importance is negligible.

In Latin America the financial sector most likely to participate in the long-run market is the one compossed by a great variety of public banks**. The importa

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* The great majority of bonds, writes CEMLA, is usually denominated in domestic currency, and large parts of the floatings denominated in dollars has had the object to consolidate foreign debt (Mexico is an exception since she has manage to place government bonds in foreing markets). The funds collected are said to be destined to cover both current and capital expenditure, with emphasis on infrastructure investment. CEMLA, however, is rather sceptical and estimates that in the inflationary countries -especifically Argentina, Brazil and Chile- their main purpose has been to mett previous public debt (Chapter 3, section a)

** To have a complete picture of total government bond transactions it is necessar to include besides the state banks all those public bodies which participate in (see overleaf).

of these bonds appears to be considerable only in Mexico, Peru, and Uruguay (see Table D again). On average the term of such bonds is over ten years. The interest rates vary considerably from one country to another, but their average of 5 - 7% is moderately low (although an occasions, they include readjustment mechanisms). Paradoxically nominal interest rates seem to be higher in less inflationary countries. Frequently, as with the rest of government bonds, they are placed among the banking system as part of their liquidity ratios or portfolio composition; although a certain proportion is bought freely by the private sector (specially in Mexico and Peru). The fact that they include re-purchase guarantee plus the backing of a government body makes them rather liquid. It is not usual for their value to be supported at par and assurance is given that, on the face of instability, official support is granted. In most cases they are placed at value, except in Argentina, Colombia and Chile where they are placed below par.

In principle their function is to supply credits for agriculture, industry, and foreign trade. Their origin comes from the reluctance of banks to grant long-term credits, as well as invest in infrastructure. Their funds come from government capital grants, special funds, credits from the Central Bank, foreign credits bond floatings, and occasionally time deposits. Time deposits pay ridiculous rates of interest considering the inflation, although they are attractive in Mexico and Peru (see Table C). Their main attraction, however, is a "participation in profits" In Mexico, for example, the Nacional Financiera (the government's investment bank), has bonds, both in peso and dollar denomination, with a 4.5 to 10% interest and a 5-6% participation in profits.

Their transactions include the financing of both the money and capital markets extending credits or investing in stocks. In Brazil, Argentina, Colombia, Mexico, and Uruguay they tend to concentrate on government debt. But, in Mexico, Colombia and Chile they also invest in private bonds. Investment in shares is only important in Mexico and this is mostly in enterprises where there is government participation. Their main function seems to be a growing tendency to finance popular housing (Chile, Uruguay and Mexico). Public expenditure financing is important in all cases, Statistics about the proportion of funds destined to long-term investment are difficult to obtain in a consolidated form, "different banks have followed different policies". CEPLA estimates that these fluctuate from a negligible amount to 95% in one of the Mexican state banks*.

IN THE Market, like the Social Security Ints, Land Reform Inst., Housing Inst., and so on.

* See CEPLA, op. cit. (pags. 117-119).

The group composed by private investment banks -adn other non-banking institutions which have been developing rapidly during the last-decade- should traditionally operate in the long-run market*. They are known, however, to work also in the short-term market, something which makes them difficult to be distinguished from commercial banks. Their funds usually come from bond issues and time and savings deposits. . Their clients are usually private enterprises and individuals. The functions, besides the granting of credits, include the purchase of both private and public bonds. Their credits are usually for construction and trade, although successful efforts have been made to channel them towards the financing of industry, and less so in agriculture (the trends in the countries differ considerably).

Their bond issues are not unimportant, especially in the long-run market (return to Tables C and D). Contrary to public banks their circulation is rather diversified ranging from the Central Bank and private financial institutions to private investors. The non banking private sector take them up readily in Colombia, Peru, Uruguay, Mexico and Ecuador. Although their time deposits are handled in much the same way as those of commercial banks, their interest rates are slightly higher. Despite the sustained inflation this type of deposits have tended to grow. Again this is explained by the value readjustments. In Argentina -not withstanding their usual rates of 18 to 24%- they are readjusted in terms of the cost-of-living index. While in Chile, they are revalued according to changes in the index of wages and salaries. In Colombia Mortgage Banks (which have access to Bank Rate) float bonds with a 7% interest rate and are mainly sold to commercial banks, insurance companies and private enterprises. In Chile Investment Banks float bonds, some denominated in dollars, and claim to grant credits for productive purposes. In Mexico they float bonds at interest rates which range from 4 to 10% with a predominance of 8% rates. Their main function is to intermediate between saviours and investment.

1.- In Argentina these banks operate mainly with long-term paper (from 5 to 15 years) and pay interest rates from 7 to 15%. but they absorb much government debt to cover budget deficits. Financial Corporations, on the contrary, grant short term credits destined to consumer goods, although monetary authorities have been trying to gear their funds towards the medium and long-term markets.
2.- Brazilian institutional investors work exclusively with short-term credit, and grant a right to profits.
3.- Colombian Mortgage Banks are very diversified in their operations. They grant long and short term credits (with moderate interest rates of 8 to 12%) and buy assets, mainly government and public bonds. Financial Corporations work with short-term paper (1 to 5 years with interest rates from 8 to 12%), but also

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* They include Mortgage Banks, Savings Banks, Financial Societies, and Mortgage Departments of Commercial Banks.

operate in the stock exchange and grant credits to industry.

4.- In Chile Investment Banks occassionaly work in the money market, but concentrate on long-run credits (more than 10 years with interest rates of 7%, which include cost-of living adjustment).

5.- In Mexico investment banks have a mixed character. They invest in both private and public long-term bonds, grant industrial credits (starting from 5 years), but also operate substantially in the money market.

In general, their credits and bonds extend from 3 to 35 years, predominating those for 10 years. The greater proportion of funds goes into construction and housing; and to a lesser extent to government bonds, trade credit, and hyre-purchase Mexico has a high proportion of investment in industry.

A major change in the structure of the financial institutions in the region has been the growth of private Financieras companies, which are not banks although there is a trend to include them within Banking Legislation. Though their quantitative importance is small and unspecified, they have been extending in Brazil, Colombia, Mexico and Chile. They are considered useful as an instrument of financial intermediation and as a hedge against inflation and interference from the Central Bank. Their specific function is the purchase and sale of assets -operating as stock companies*. They usually invest in stock from productive, financial and commercial enterprises. Only a small fraction of their resources is placed on the bond market. Their funds come from the issue of their own stocks.

The interesting thing to note, is that while these institutions were practically non-existant by the end of the war- when the commercial banking system was the main and in cases the only private financial institutions- they have grown ever since. Their growth has usually merged with an important commercial and investment bank group in response to the liquidity controls imposed. For a time, the versatility and usefulness as outlets for the closely regulated funds of the commercial and less so investment banks permited them to gain importance. These are the institutions which accept time deposits, sell certificates of deposits, and market long-term credit and stocks. They have tended to group together so as to reduce competition from the public sector and enhance profits. This should not be taken as a monopolistic trend, since "financial groups" tend to compete with each-other. However, by the early 1960's monetary authorities have been devising measures to control their operations.

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*In Brazil they invest in industrial enterprises (food and steel and insurance); in Argentina in live-stock and commercial firms; in Colombia in chemicals and beverages; in Mexico in commerce and industry; while in Chile they have been relatively unsuccessful because of competition of governments bonds denominated in dollars.

Another important group is formed by the private insurance companies. Their importance in absorbing savings has kept on increasing, although far from the importance they have in other regions. A certain share of their fund goes into the capital market, mainly through the purchase of public and private bonds and long-term credit. Funds come from insurance policies and very frequently from investment in real state (Argentina, Colombia, Peru and Mexico). Apart from their explicit functions, they invest in building, real state, and housing for leasehold. Only recently have they purchased bonds, as a result of compulsory measures, in Argentina, Mexico and Peru. It is not known what proportion of their fund is invested in the long-term market, but it is claimed that it mostly goes to trade, and industry. Long-term credits are granted to the government and banking system, and short-term credits for hire-purchase.

Lastly, with respect to private enterprises, according to CEMLA, it is well known that Latin-american firms hardly issue bonds. Their investment is usually financed through undistributed profits or credits from the banking system. Although statistics are very scanty and unreliable, CEMLA, estimates that in Chile Mexico and Peru such circulation may reach at the very most 20% of total bond issues. The interest rates paid are somewhat higher than for other bonds, and in the case of the above countires they are sometines denominated in dollars. They are usually placed in the private sector, although occassionally some public banks have taken them up. Their backing is usually given by an important financial institution and, as in Chile and Mexico, on occasions by a public bank*

The over-all modest development of the capital market --together with the erosion caused by chronic inflation, but in the context of powerful and diversified liquidity controls- explains to some extent the check on the instability in velocity. It was said that a qualified definition of liquidity in the region (perhaps with the exception of Mexico) points out the large importance of the money market in determining the trend in velocity, other things being equal. Resuming what are the institutional characteristics in the capital market with reference to velocity?

1.- The great proportion of government paper is placed within the public sector itself, as well as in private commercial banks. In the remainder Central Banks and special commissions have the power to intervine in the capital market, but it is clear that their power has to be exercised mainly in the money market (again perhps with the exception of Mexico).

2.- The bond market, despite the degree of deficit financing in the public sector has moderate floatings as compared with total economic activity**. Moreover, a very large part of both issues and holdings is kept within the public sector.

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* CEMLA op. cit. pags 62-65.

** The apparent paradox is studied in Chapter 3, section d.

The potential source of inflationary pressure is then closer to the "budget-deficit-cause-of-inflation" rather than to excess liquidity available to the private sector (especially so in Argentina and Chile). And, it is by no coincidence that in the less inflationary countries (Mexico, Colombia, Peru and Ecuador) private holdings of bond issues were relatively much larger -and these countries have contained increases in velocity. Other factors that check excessive velocity in the market are real rates of bond interest which may be much higher than what statistics indicate; bonds may have considerable liquidity, in the form of re-purchase guarantee and assurance of support from the Central Bank; and, they may form part of the compulsory liquidity ratios of commercial banks and institutional investors.

3.-The quantitative importance of bond market transactions of private investment banks, Latin-american financieras, public investment banks, insurance companies and private enterprises is indeed very relative; although less so in the less inflationary countries (Mexico, Peru and Colombia) which sometimes pay attractive rates of interest and a right to profits. This again, either way, ensures a check on velocity.

4.-It should be stressed that although in theory private investment banks, and some public banks too, ought to work in the capital market, it is known that a good proportion of their resources is channeled through the money market (especially in Brazil and Colombia).

5.-The development of Financieras precludes a hedge against inflation, a right to profits instead of interest and an encouragement to hold financial assets (more of this below). Whether this carries greater liquidity in the capital market depends on the steps monetary authorities take to include these institutions within banking legislation and controls (as in Mexico and Argentina).

(C)

CEMLA writes that statistics on the stock markets are scarce; but that, on the other hand, the general characteristic of the markets are similar in the region*. In fact, as a consequence of the particular methods through which enterprises finance investment, the importance of shares in the stock market is very low. The persistent trend has been for shares to be kept within the "family unit". Thus the "quantitative" importance of registration and transactions in the stock exchanges is almost negligible. Still, if their quantitative importance is small, such transactions may serve as qualitative indicators of trends in financial activity.

Out of the ten inflationary countries considered in the study, seven have stock exchanges -four in Argentina, twenty two in Brazil, two in Chile and Colombia, one in Peru and Uruguay and three in Mexico. The main bulk of transactions, however, is concentrated in the capital cities; except in Brazil where Sao Paolo is also important. The small importance of stocks as transaction instruments of the stock exchange may be illustrated by the ratio between stocks registered and

* Idem. pag. 16.

stock transacted (Table E). Except for Argentina, in the rest of these countries the percentage of transactions was very low; something which reflects the concentration of assets within the enterprise. The indicator, however, is a very crude one since it does not include transactions outside the stock exchange. CEMLA estimates that outside transactions can be as high as 90% of the total in Bogota, but as low as 20% in Lima and 13% in Mexico City.

The types of assets and their terms differ considerably in the various exchanges. But in general, transactions are characterized by long-term paper and shares; although the Rio de Janeiro exchange works mostly short-term assets.

Concentrating on the transactions performed for the small period when comparable data was available, what has been the contribution of stock exchange transactions to liquidity? (see Table F). If the transactions are divided simply between bonds and shares two opposite trends are evident. The evolution of transactions has to be interpreted in terms of Table G. It becomes clear that in most inflationary countries -Argentina, Brazil, Chile and Uruguay- the main bulk of transactions has naturally been in shares; while in the least inflationary countires Mexico and Peru -transactions are concentrated in bonds. In fact, Mexico City's exchange appears to be purely a debt market. It is interesting that Colombia, which "stands in the middle" with respect to the rate of inflation, also divides its transactions equally between stocks and bonds. Thus from Table G, it may be seen that in the first group of countries stocks are what count, while in the second bonds are the indicator and in Colombia the total of both types of transactions.

Taking the series at market prices it would appear that, even after two decades of chronic inflation, the stock exchange in the region are buoyant (with the exception of Montevideo). If, however, the value of transactions is deflated with the cost-of-living index the picture is rather different. In the inflationary countries -Argentina, Chile*, Colombia and Uruguay- the "liquid funds" forcoming from transactions have either stagnated or declined sharply. It may be claimed tha

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* The long-run contraction of Chilean stock exchange transactions and bond issues may be seen in the following series (millions of 1964 escudos) (S. Undurraga, Economic development issues, Prager, London, 1967, pags, 129-30:

	1948	1949	1950	1951	1952	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
S	147	120	118	259	279	378	152	119	106	110	67	56	71	107	100	91
B	58	57	55	46	46	15	9	28	8	7	7	13	10	4	2	1

TABLE E

Ratio Between Securities Registered and Securities Transacted 1963

Stock Exchange	% of Securities Transacted
Argentina	74
Brazil	5
Colombia	26
Uruguay	56
Mexico	18

Source: Los mercados de capitales en America Latina CEMLA MEX. 1966

TABLE F

Index Series for the Growth in Value of Stock Exchange Transactions (1959-1963)

Country/Year	1959	1960	1961	1962	1963	1959	1960	1961	1962	1963
	(at market prices)					(at constant prices)				
Argentina										
Stocks	100	235	257	250	489	100	86	83	63	100
Bonds	100	264	296	193	695	100	97	96	49	142
Total	100	239	262	243	614	100	88	85	62	125
Brazil										
Stocks	100	184	323	924	2779	100	99	126	236	406
Bonds	100	157	140	302	469	100	85	55	77	69
Total	100	176	266	731	2059	100	95	104	187	301
Chile										
Stocks	100	64	60	97	211	100	41	36	51	77
Bonds	100	97	182	181	104	100	63	109	95	38
Total	100	67	68	103	203	100	43	41	54	74
Colombia										
Stocks	100	88	81	106	131	100	79	67	88	80
Bonds	100	134	129	143	177	100	120	107	115	108
Total	100	104	99	120	147	100	94	82	97	90
Peru										
Stocks	100	149	163	161	128	100	122	124	117	86
Bonds	100	528	729	741	430	100	432	556	536	291
Total	100	247	308	310	206	100	202	235	224	139
Uruguay										
Stocks	100	97	122	92	74	100	50	51	35	23
Bonds	100	161	121	66	56	100	83	51	25	18
Total	100	106	122	89	71	100	55	51	33	22
Mexico										
Stocks	100	139	117	98	190	100	136	108	89	171
Bonds	100	88	186	469	612	100	81	170	426	551
Total	100	89	184	460	600	100	82	169	417	541

Source: See Table E

TABLE G

Distribution of Transactions in the Stock Exchange, 1959-1963

(%)

Country	1959	1960	1961	1962	1963	1959-63
Argentina						
Stocks	88	87	86	92	84	86
Bonds	12	13	14	8	16	14
Brazil	S					
Stocks	69	72	84	87	93	89
Bonds	31	28	16	13	7	11
Chile						
Stocks	93	90	82	88	96	92
Bonds	7	10	18	12	4	8
Colombia						
Stocks	64	54	53	57	57	57
Bonds	36	46	47	43	43	43
Peru						
Stocks	74	45	39	39	46	44
Bonds	26	55	61	61	54	56
Uruguay						
Stocks	86	79	87	90	89	86
Bonds	14	21	13	10	11	14
Mexico						
Stocks	3	4	2	0.5	1	1
Bonds	97	96	98	99.5	99	99

Source: See Table E

frustrated borrowers and lenders in the money market could not look forward for much liquidity in the stock exchange. This may be a factor which deterred further increases in velocity. On the other hand, in the less inflationary countries, stock exchange transactions did grow considerably and may have contributed to liquidity. The puzzling case is that of Brazil because stock exchange transactions grew four times in real terms in only five years. Moreover, such an increase was compatible with a rather constant velocity and monetary permissiveness (the fact may be explained by the growth of Financieras and their dear money practices, as we shall see below).

As far as share price changes as compared with price changes and stabilization periods the following pattern may be observed (Table H). The fluctuations in share prices have been considerable without any apparent relation to price increases. One would have assumed that the more the inflation the higher the prices for shares. What can be said is that during periods of stabilization objectives -those years underlined- the prices of shares fell indicating two alternative things. An attempt to obtain liquid assets or simply a low level of activity. They, however, had little impact on prices, since these continued to increase. The only exception is Mexico, but here share tansactions are quite negligible and cannot be taken as an indicator.

In general, it is safe to assume that financial transactions in the stock exchange are rather unimportant with respect to the rate of inflation but that their small importance is creating liquidity may also be one of the factors that impedes further increases in velocity (except in Brazil).

(D)

From an eclectic angle it would appear that continuous increases in the supply of money, together with extremely low nominal rates of interest and chronic inflation, would result in a highly unstable velocity function. In fact, the regions experience has been one of increasing velocity, nominally low interest rates, and a negative Bank Rate*. But, it is also a fact, as it has been repeatedly said, that velocity has remainded within rather moderate bonds considering these increases in money and cheap rates of interest. But, could it not also be true that institutionalized practices have in fact raised real rates of interest in such a proportion as to ascertain a certain stability in the demand for money?

Throughout Latin America it is recognized that a maze of legally fixed interest rates and officially supported assets puts extreme limits to the usefulness of much of the interest-rate published material and a variety of subterfuges produces a considerable difference between apparent rates and actual rates paid. In the context of regional comparisons one has to be careful not to generalize too much:

* Brazil still appears to manage a rather stable velocity with negative bank rate and nominal rates of interest and increasing inflation.

TABLE H

Annual Xhanges in the Indices for Share Prices (SP) and for the Cost of Living (P), 1949-1965

(%)

Country	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina																	
SP	-12	-17	-3	-21	14	80	51	1	-8								
P	29	33	33	38	5	4	13	13	25	32	114	27	14	38	24	22	29
Chile																	
SP	-1	-0.3	-0.3	28	33	94	110	9	10	28	69	1	16	12	111	39	28
P	20	17	29	22	18	77	74	58	25	27	39	12	8	14	45	46	28
Colombia																	
SP	-1	2	-4	4	8	-4	9	13	6	-5	4	-6	2	2	-2	13	36
P	7	21	9	-3	8	9	-1	7	14	7	4	6	9	3	32	14	4
Peru																	
SP	-18	-3	14	3	23	14	1	9	8	-19	-8	3	-4	-2	-4	0	1
P	13	14	10	6	9	5	5	5	8	8	13	8	7	5	7	8	16
Mexico																	
SP	24	26	45	0	-5	8	10	18	9	-11	-4	0	-7	-7	4	37	5
P	6	4	13	15	-3	6	16	4	6	12	2	6	1	1	1	3	4

Source: Statistical Yearbook, UN, N.Y., 1955-1968.

what is determinant here is the rate of price increases which varies a lot between the countries of the study.. Hence the gap between nominal and real rates of interest should be wider in, say, Argentina, Brazil and Uruguay; Chile being a spacial case in this sense; less so in Colombia and Peru; much less so in Mexico; and perhaps not at all in Ecuador*.

The question is that with chronic inflation financial institutions have adapted themselves to the setting-with various degrees of sucess in the money market and less so in long-term paper and credit. The markets have developed very complicated devices to avoid the legal restrictions deviced for non-inflationary economies. Indeed, the powers of the monetary authorities have gone over bank rate into the right to practice differentiated rates of interest, placed ceilings on the rates, extend to different assets and financial institutions, and so on. The structure of the interest rate in these countries is much higher than the one prevalent in advanced countries; but judging by the rate of inflation, they are still ridiculously inadequate (see Table C again)**.

Thus the result has been to find legal loopholes or legal formulas which replace the words "loan" and "interest", as well as a variety of value readjustment mechanisms. With the rate of inflation being unpredictable, the result has been to solve some of the problems in the short-term market, while the long-term market has presumably been deprived from a certain amount of funds***. How has then the gap between nominal and real rates of interest increased during inflationary periods?

1.- As it was illustrated a variety of fixed-income securities are placed below value; perfected liquidity is granted on occassions; whether, implicit or explicit re-purchase guarantee is offered; official backing is granted by the public banks or a main private financial institution.

2.- Escalator clauses are practiced in accordance with the cost-of-living index, the wages and salaries index, or the price of gold. In some countries like Brazil or Mexico, this is not legally practiced; but in other it is possible to do so -Argentina, Chile and Uruguay. The solution, of course, even if legal, is not satisfactory because the unpredictability of inflation implies the danger of a readjustment lag.

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* A fascinating -not to say overwhelming- empirical research could be comparative studies on the interest rate, starting with an inflationary setting which led to an "immeasurable" setting of interest rates, an official world of nominal rates and the ineffectiveness of bank rate policy and finishing with the recomendation of a viable interest rate policy that would check inflation.

** Average rates of price increases hardly indicate the magnitude of the divergence in many years prices have increased beyond 25% and up to 114% in Argentina.

*** This is not the place to discuss the distorture effects of inflation on savings and investment (for a discussion on the subject turn to section d below).

3.- The natural consequence has been, as it was said, for time deposits to decreased at an alarming rate (see Table A). The move, only in some countries -Chile, Peru, Mexico and Uruguay- has been for FCD to increase.

4.- Banks, of course, grant credits on the last resort since they pay even lower interest rates to their depositors.

5.- Frequent devices to increase nominal rates of interest have been: out-right charges of interest without registration in the books; high banking fees for "services"; a sophisticated device has been to tye a loan to a time deposits until the debt is paid off*.

6.- Trade credits can be enormously high. In Mexico, the least inflationary of the countries, small business often pay 30%, and consumer loan as much as 36% per annum**.

7.- The creation of associated financieras to an important commercial or investment bank implies the granting of rights to "profits" instead of interest payments or the creation of bills of exchange (letras de cambio) instead of loans***. In terest rates then can be as high as 30-40%. Deposits and loans then take the form of participation and interest rates the name of profits.

8.- Experts estimate that real rates of interest have been climbing consistently with inflation, although in unpredictable fashions****.

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* The borrower takes out a loan much larger than what he wants and desposits part of this money in the bank. Since the interest rate paid on such deposits is far less than the rate charged for credits, the effective rate is far above that appearing on the contract. Such deposits are, of course, subject to liquidity ration resulting in liquidity control and dearer money. Suppose tha an individual wishes to obtain a loan of a 1,000 pesos. The bank lends 2,000 pesos at 10% a year and requires the borrower to deposit half of the amount in a time deposit at 2% per year. The effective rate of interest in this case comes to 18%.

** See D. Shelton, op. cit. (pag 135).

*** The second system is even more ingenious. The borrowers exchange promissory notes for bills of exchange drawn by him and accepted by the financiera. The due dates of the bills of exchange are escalated in such a way that before the due date of each an equivalent amount of promissory notes bought by the borrower becomes due. Thus the finance company assures the payments of the bills it has accepted through the previous falling due of bills received by it. Up to then, the borrower simply exchange promissory rates for bills of exchange. However, since the bills of exchange are considered as securities it is possible to sell them at a discount in the capital market (hence the growth of these transactions in the stock exchange, i.e.Brazil). Thus the borrower keep the money he requires. (In practice the company then resells the securities from the borrower to the public). For the purchaser of the security, interest is replaced by the discount. In this way a one year, security is resold for 74% of its nominal value (that is with a 26% discount) and assures the purcha an implicit interest of 26/74 or 35% per annum. The borrower, who exchanged his promissory notes for bills of exchange, indireclty pays this implicit interest rate, plus taxes and commissions.

**** CEPLA, op. cit.

9.- The effect has been for long-term credits (productive credits as they are called in Latin America) to fall on the shoulders of public banks and other government agencies (which have recourse to rather dear foreign loans, some of which are made occassionally in the domestic currency). The interest rate charged by these agencies is extremely low in view of the inflation. Obviously for the borrowers this constitutes a gift, but as with all gifts they are scarce.

If the nominal structure of the rate of interest is taken at face value, the picture is one of very cheap money (see Table C again). What appears particularly bewildering, leaving bank rate aside for a moment, is that the most inflationary country (Brazil) had the lowest nominal rates of interest and milder fluctuations in velocity. While, the least unstable ones (Mexico, Peru and Ecuador) has higher and more realistic rates of interest and sharper movements in velocity. The rest of the countries (Argentina, Colombia and Uruguay) present little difference in their nominal rate of interest structure (Chile, however, has higher interest rates). It is interesting to note again that most of the countries maintained FCD and different bonds denominated in dollars; while Argentina does not and she has the highest increases in velocity (Brazil, however, is an exception).

It can be concluded that the least inflationary countres -Mexico, Peru and Ecuador- followed more realistic interest rates -on occassions higher than the rates of more inflationary countries- and were rewarded with a lower rate of inflation. In fact, Ecuador has the most realistic record (but this is an unfortunate example since this country is one of the poorest in the region).

Turning to the trends in nominal Bank Rate policy, velocity, and price what do official statistics indicate? (Table J). In Argentina Bank Rate has been kept at "floor level" for at least over a decade and this too has coincided with sharp increases in velocity. Brazil's Bank Rate has also been at floor levels, but with a rather constant velocity. And in both cases the divergence between Bank Rate and price increases is enormous. Thus, considering the very relative usefulness of the indicator, the trends may be purely "coincidential". The relationship, however, seems to be more pertinent in Chile, Colombia and Peru. In the latter two cases there has been a mild trend in Bank Rate increases together with a certain decrease in velocity -inflation has also been milder. And in Chile, after 1958 there was a sharp change towards dearer money, so that increases in bank rate seem to move pari passu with a fall in velocity. The response in prices, however and except for 1961, has been minimal. Mexico presents a case of a fixed Bank rate floor for at least 18 years together with various changes in velocity and prices (see Table A). So that, for the reasons stated along the exposition, one should be very sceptical about the possibility of establishing a relationship between a nominal variable and velocity. The official opinion in Latin America has been that

TABLE J

Changes in Bank Rate, Velocity and Prices,

1948 - 1965

(%)

Country	Period	BR	$V^{(a}$	$P^{(a}$
Argentina	1955-1958	5.0	1.95	20.7
	1959	4.5	2.8	114.0
	1960-1962	5.0	3.3	26.3
	1963-1965	4.5	3.8	25.5
Brazil	1948-1957	6.0	3.0	16.5
	1958-1964	8.0	3.3	46.7
	1965	18.0	3.2	61.0
Chile	1948-1956	4.5	7.5	35.9
	1957-1958	6.0	10.9	26.0
	1959-1960	16.6	8.5	25.5
	1961	15.9	7.7	8.0
	1962-1964	14.3	6.6	35.0
	1965	15.3	6.1	28.0
Colombia	1950-1957	4.0	5.9	8.0
	1958-1963	5.0	5.1	5.8
	1963-1965	8.0	4.9	17.7
Peru	1948-1958	6.0	4.6	10.3
	1951-1965	9.5	4.5	9.1
Mexico	1948-1965	4.5	-	-

Source: See Tables A and IMF, IFS

a) Average for the period

true open market operations are negligible and rediscount policy rarely decisive.

It must be remembered, however, that something must explain the deterrent factors that have kept velocity within tolerable bonds. That is, taking the monetary policy measures one by one their effect may appear negligible, but if all liquidity and portfolio controls are added-up, together with the growing gap between real and nominal interest rates, the measures may go a long way in explaining the phenomenon (turn to Part III, Chapter 1).

What remains disquieting, of course, is that in the majority of cases, prices have continued to increase despite monetary policy. This brings the argument back to the controversy, to the structural causes of inflation (turn to Chapter 3), and to the scope of monetary policy. It is generally recognized that draconian monetary restrain may reduce the rate of inflation in Latin America for some time, but only with "irreparable" damage to the rate of growth and public investment. Furthermore structuralist claim that because of the structural causes of inflation and the historical economic characteristics of the region a growth priority is sine quanon, in the sense that stabilization programmes will not succed without such a primer objective*.

Resuming, monetarists assume demand inflation, control of the supply of money and predictable velocity. It is necessary to determine how monetary authorities may or may not control the supply of money and the financial sector whether in the light of monetary considerations (the liquidity effects) or as a result of fiscal requirements (interest rate effect). (Something which also brings us in the next section to the second monetarist cause of inflation, budget deficit financing). Still, these appear rather weak assumptions to structuralist, who are interested in cost-push inflation and structural imperfections, Aside from these causes of inflation, this does not mean that the supply and demand for money are not behind the inflation -although for structuralist their role is only a propagating one- it means that their role is partial and has to be further assessed with necessary empirical case studies and with reference to the imperfection of the money and capital markets in the region. In our view this has been done insufficiently by both sides of the argument, so that the object of this disgression has been to make the fact explicit.

The second thing that monetarists assume is that, because of the rates of growth in money and the predictable velocity, inflation can be cured with monetary policy. Let us state the position in the words of professor Lutz when he talks about Latin America (24). He specifies that in the case of demand pull inflation

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* This is a controversial subject discussed in Part III.

the immediate cause of inflation is the over expansion of credit either to the private sector or to the government. If it is the latter, one can claim, the obvious method is to balance the budget. It should be remembered that if the monetary authorities worked within the constraint of a given debt management policy, monetary tools may not control inflation. For the author "it goes without saying that if inflation results from excessive credit expansion to the private sector, a restrictive monetary policy is the proper method to deal with it" (professor Lutz refers one to the Italian example in the post war). Dr. Kaldor does not agree with the Italian example. He writes: "but there are other examples. I would remind professor Lutz that... Dr. Salazar's monetary stabilization was followed by 30 years of hard currency, stable prices and a completely stagnating economy" (25). Mr. A. Kafka also disagrees: "the great concentration of banking and financial institutions in Latin America plus the very close relations of these institutions with the also heavily concentrated industrial sector (brings forth that...).. the net effect of credit restriction is an increase in the concentration of industry which, I think, is one of the key propagating factors... You won't find that a severe credit restriction in the private sector will cause prices to fall, even though stocks are sold. Of course, in general, the result of this is to favour fiscal policy because of the bad effects of monetary policy" (26).

What is peculiar is that monetarists do not seem to have applied to Latin America -but opposed- the limitations of monetary policy found in advanced countrie Experience such as the one described in the theoretical statement above appears to be rather neglected. While, on the other hand, structuralists have not gone into the subject in empirical terms.

However, a second part of the monetarist argument is -as professor Lutz says- the role of budget deficits and borrowing from the central bank in the inflationary process.

b) Budget Deficits

It is recognised that the constraint created by public debt management may well lie behind an expansion of the supply of money. This is especially true in Latin America where unemployment or under-employment is relatively high;

where infrastructure services constitute a bottleneck; and, where the size of the money and capital markets may make the voluntary purchase of government paper difficult. Through this bridge - an expansion of expenditure and credit - public deficits may contribute substantially to the inflationary process. This demand pull inflation can better spiral if wages and other costs tend to increase together with the presence of structural bottlenecks. But, in theory - and here Mr. W. T. Newlyn is particularly helpful (27)* - it is also said that the fact should not be exxagerated; i.e. given an unduly weight.**

'It is my impression, writes professor Harberger, that the basic force which has created the inflationary pressure in Latin American countries has been a chronic budget deficit' (28) (See Table III). But it is important to realise that budget deficits do not invariably produce inflation. Economic growth is the principal reason that budgetary deficits can be maintained continously without necessarily producing inflation. Having this in mind, let us turn to the monetarist exposition of how budget deficits are a cause of inflation: following professor Harberger closely (29). The money supply in the hands of the public and the government may be conceived as representing the liabilities of the banking system as a whole. Any increase in the money supply will have as its counterpart some increase in the assets of banks, and an increase in bank assets can represent either private obligations or public sector obligations, or both. Assume a situation in which the assets of the banking system consist initially of half public and half private obligations, and in which these proportions are maintained throughout the process of monetary expansion. If the supply of money expands ad the rate of 5% per annum, half of this expansion would be accounted for by increases in bank holdings of government obligations. On this account only, monetarists would justify a government deficit which each year was 2.5% of the money supply.

Monetarists claim that the amount of deficit that can be justified for UDC is less than for advanced countries. In advanced countries the money supply often amounts to 33% or 50% of a year's national income, so that a government deficit of 2.5% of the money supply would amount to 0.85 of 1.0% of 1.25% of the annual income. In UDC, on the other hand, the supply of money typically amounts to something between 20% to 10% of a year's national income. Here a deficit of 2.5% of the supply of money would only amount to between 0.25% of 1.0% or 0.5% of 1.0% of a year's national income (See Table III, where in GNP terms the % of public deficit is quite larger for all countries).

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*See again the paper cited (pags 11 to 14).

**What this means is that authorities can control the supply of money, despite an increase in public debt, if Bank Rate is increased to a penalty rate, of course, the Government incurs in higher debt costs.

The fact that the money supply amounts to such a small fraction of annual national income in most UDC, argue monetarists, operates to produce a particular tendency to inflation. Suppose and AC in which the supply of money amounts to 50% of a year's national income. If this country has a deficit of 2% of a year's national income and if it is financed by the sale of bonds to the banking system, the resulting increase in the money supply may range between 4% and, say, 8%. (The 4% figure assumes that the government divided its sales of bonds between the central bank and the commercial banks in such a way that the government absorbed the full increase in the supply of money) (the 8% figure assumes that the government sold the bulk of its bonds to the central bank, and that there was a secondary expansion of money on the basis of the reserves thus created).

Suppose; on the other hand, an UDC in which the money supply amounts to only 10% of the year's national income and the public deficit is equal to 2% of it. On the same assumptions, the resulting increase in the supply of money would range instead between 20% and 40%. The same deficit, expressed in relative terms can produce inflation to a greater extent in an UDC. On this reasoning monetarists explain why inflation has been so much more a serious problem in UDC than in AC. It is thus believed unlikely that any country can avoid a substantial rate of inflation if its government has a chronic large deficit of which a substantial part is financed by the sale of bonds to the central bank. This has been the record in many Latin American countries. Moreover, monetarists recommend that stabilisation programmes should include a serious attack on the problem of chronic and substantial budget deficits. But, of course, this amounts to recognizing that purely monetary measures will not be sufficient as long as large public deficits persist. It is also evident that structuralists cannot deny the validity of this reasoning.

Structuralists are going to admit that budget deficits may reflect the existence of a propagating or induced cause of inflation. But, again, they will be interested in the causes that 'forced' authorities to incur in such permissiveness, which will even involve the mismanagement of public monetary accounts with the central bank and the public. They are going to argue that the government is pressed by high unemployment, infrastructure bottlenecks and particularly a shortage of foreign exchange that may push the economy into a chronic deflation. However, what interests us here, simplistically, is the relation between budget deficits* and the rate of inflation. Turn again to Table III.

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*The limitations of using budget deficits as an indicator of public behaviour are discussed in Chapter III, Section D.

TABLE III

Government Budget Deficits (BD) or Surpluses (-) and the Rate of Inflation, 1946-1965[a]

(as a % of GNP)

COUNTRY	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina																				
BD	0.5	2.7	8.7	-	3.7	3.9	3.4	3.5	3.7	4.2	4.7	3.2	7.7	5.7	2.5	1.7	3.8	3.7	5.1	2.3
P	20	13	11	29	33	33	38	5	4	13	13	25	32	114	27	14	38	24	22	29
Brazil																				
BD	-	-	-0.1	1.2	1.7	-0.9	-0.7	0.7	0.8	2.2	3.9	2.2	3.0	3.3	3.7	5.0	5.1	5.3	3.9	3.3
P	15	19	13	10	4	8	25	20	19	20	22	19	15	37	35	38	52	75	85	61
Chile																				
BD	-	-	0.8	-	-0.1	-	-	2.7	0.3	0.6	1.3	1.4	1.5	1.7	2.8	2.7	3.6	1.7	1.5	1.7
P	19	23	18	20	17	29	22	18	77	74	58	25	27	39	12	8	14	45	46	28
Colombia																				
BD	-	-	-	-	-0.1	-0.9	-0.5	0.2	0.8	1.1	1.3	-0.9	-0.6	-0.4	0.4	2.0	2.6	0.9	0.8	0.7
P	8	18	16	7	21	9	-3.2	8	9	-1.4	7	14	7	4	6	9	3	32	17	4
Peru																				
BD	2.0	0.7	-	-	-	-	-	0.2	0.4	0.1	1.2	1.9	1.9	-0.8	-0.1	-0.5	2.2	3.5	2.1	3.5
P	9	29	30	13	14	10	6	9	5	5	5	8	8	13	8	7	5	7	16	9
Mexico																				
BD	-0.5	0	0	0.5	-0.3	-0.9	0.1	0.4	0.6	-0.8	-0.4	0.4	0.8	0.4	0.9	0.8	1.0	1.0	0.1	0.1
P	21	13	6	6	4	13	15	-3	6	16	4	6	12	2	6	1	1	1	3	4
Bolivia																				
BD	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	4.4	3.4	2.8	-3.8	3.5	3.0
P	-	-	-	-	-	0	100	100	125	78	181	116	3	20	12	8	6	7	11	6
Ecuador																				
BD	-	-	-	-	0.2	-0.3	0	0.5	0.7	1.3	1.8	-0.1	-0.6	0.6	2.8	2.5	3.5	1.6	1.9	3.0
P	-	14	7	1	0	12	3	0	3	2	-5	0	2	0	3	2	4	3	6	3

Source: Argentina, Statistical yearbook, UN; Brazil, M.H. Simonsen, A experiencia no inflacionaria do Brasil; the rest, IFS, IMF.

1.- It is surprising not to find at the general level of inter-country comparisons, any clear relation between budget deficits (measures as a percentage of GNP) and annual price increases.

2.- More so, different countries present different tendencies. It is only in Brazil - and perhaps in Argentina - where the monetarists' argument of large budget deficits coinciding with higher prices seems to be present. But Mexico and Chile present exactly the opposite tendency: larger budget deficits are accompanied by a fall in the rate of price increases! And in Colombia, Peru, and Ecuador there is no regular pattern.

3.- Still, two important facts stand out in the monetarist argument. First, countries with large budget deficits (Brazil and Argentina) have higher inflation; and vice versa (Mexico and Colombia). But, Chile is an exception in the former case, and Ecuador in the latter, Second, in years of particularly high inflation rates, with exception, large budget deficits coincide (except in Chile and Mexico).

The next step is to establish a simple statistical correlation between the two variables (Table III):

1.- The correlations appear to support the above inconclussiveness. That is, one cannot generalise in Latin America about the relationship between inflation and budget deficits. Thus one should not jump to the conclusion that budgetary restraint is obvious when aiming at stabilisation.

2.- Initially, monetarists seem to have a case again with Brazil. The coefficient (0.74) lagged for the monetarist assumption (P+1) is relevant and the fit of the equation 'good'. However, if one looks at the series it will appear that BD and P started to climb in 1955. ECLA writes that this coincides with the coffee crisis. 'The major factor in destroying the balance in the public sector was the coffee crisis, and the payments made in the process of the stockpiling programme... The funds paid out in the process of maintaining this programme was large and with the peak coffee crop of 1959, amounted nearly to 3% of GDP' (30). Structuralists are going to interpret this as evidence of an external sector crisis which resulted in further inflation and forced the government into an increasing defitic. While this 'original cause' of increases in BD and P is true, there is also evidence that the management of fiscal accounts leaves much to be disired. Outright borrowing from the Central Bank has been high, much of it has been spent in consumption, and infrastructure bottlenecks have not been reduced to a significant point. These points are also discussed in ECLA's "The evolution of economic policy in Brazil (1954 - 1963) (31).

TABLE IV

Correlation coefficient (r), stantard error (s e), and Linear Regression (y= a+bx) for Budget Deficits (BD) and the Rate of Inflation P 1946-1965[a]

COUNTRY	P			P+1			P-1		
	R	s e	y=a+bx	r	s e	y=a+bx	r	s e	y=a+bx
Argentina[b]									
BD	0.35	0.21	y=4.8+6.2x	0.62	0.15	y=14.2+10.9x	-0.24	0.23	y=45.8-4.2x
Brazil[c]									
BD	0.66	0.14	y=10.9+8.2x	0.74	0.11	y=11+9x	0.58	0.16	y=11.7+6.9x
Chile[d]									
BD	-0.87	0.16	y=75-21.6x	-0.26	0.22	y=48.1-6.4x	-0.50	0.20	y=58.7-12.7x
Colombia[e]									
BD	-0.03	-	-	0.55	0.17	y=6.8+4.6x	-0.14	-	-
Peru[b]									
BD	0.31	0.25	y=7.1+0.7x	0.50	0.21	y=6.6+1.1x	-0.45	0.22	y=8.1-0.7x
Mexico									
BD	-0.56	0.15	y=8.1-6.1x	-0.45	0.18	y=6.8-4.1x	-0.32	0.20	y=7.9-3.6x
Ecuador[g]									
BD	-0.03	-	-	0.08	-	-	0.17	-	-

a) Sources: See Table II.

b) 1950-1965, c) 1949-1965, d) 1953-1965, e) 1950-1965, f) 1953-1965, g) 1950-1965.

3.- Monetarists also have weak correlations in Argentina (0.6) Colombia (0.55), and Peru (0.5). However, Argentina's equation fit is very poor and misleading. As we shall see in the case studies of Argentina (which has a shrinking public sector) and Peru, the stabilisation programmes which were able to reduce the rate of inflation for a short period coincided with expansions in BD. This is, of course, short-term analysis; different from the long run generalisations one is making here.

4.- As expected negative correlations were found in Chile (-0.87) and Mexico (-0.56). The Mexican case may be interpreted as evidence for structuralists as public investment and growth increased, domestic bottlenecks and inflationary pressures were reduced over the long-run. But, this is not so for Chile; chronic inflation has persisted. As it will be seen in the Chilean case study BD have coincided with stabilisation programmes, something that to a certain extent is explained by increasing recourse to foreign credits.

5.- In the least inflationary of the countries - Ecuador - there is no correlation; despite that BD have tended to be high from 1960 to 1965. It is unfortunate that complete information for Bolivia is not available. However, it would appear surprising that when the rate of inflation was greatly reduced (1959-1965) BD's continued to be extremely high. Its non-inflationary impact is largely explained, according to Mr. Zondag, by direct United State aid.

6.- Two simplistic conclusions are the following: there is insufficient evidenc that budgetary deficits are an 'original' cause of inflation nor are they sufficiently related in a statistical sense to prices; and, a reduction of public expenditure, and, hence public investment, can be rejected as part of a stabilisation programme. This point will be extended below.

Structuralists argue that BD's as such are not enough proof of a correlation with inflation. They think that it is necessary to establish the relation between public expenditure and both the rates of inflation and growth. For them part of what happens to the rate of inflation depends on what happens to public expenditure, i.e. public investment. The distribution of expenditure in current, transfer payments, capital, and national debt expenditures should be compared with both the rates onf inflation and growth. Moreover, structuralism is interested in what happens to revenue; what are the causes for its fluctuations; how does it compare to expenditure; and how budget deficits arise? This they find necessary to understand the relationship between fiscal policy and inflation. Structu alists take the side in the controversy of expanding public investment to reduce inflationary pressure, although they are interested in finding 'better' ways to place government bonds in the money and capital markets'*. The controversy is

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* See footnote overleaf

taken up again under structuralism (Chapter 3, section d).

The next point monetarists usually consider, no longer dealing exclusively with demand pull, is the role of wage and salary increases in Latin-American inflation. Here the term monetarism has to be stretched, because monetarists are willing to consider wage push - mainly from the side of the supply of labour - as an autonomous cause of inflation.

c) Wage Inflation

In advanced countries wage push has come to play an important role in the post-war inflationary spiral. This is said to be a situation of cost push where demand pull is very present; plus, of course, other factors like mark-up pricing. Moreover, it is more frequently claimed that a sound policy should include an important chapter dedicated to 'incomes'. But, here the subject is highly controversial.** Structuralists believe that, in any case, the final aim of a wages policy lies in what becomes of 'productivity', growth endeavours and, mainly, an expansive public investment, as compared with an orthodox contraction of it.

Turning to Latin-America in the light of monetarist analysis, it should be stressed that monetarists although interested in demand pull, consider wage inflation as an autonomous source***. One should remember, however, that Latin-American countries present different structural characteristics from advanced countries in this respect. One has to keep in mind different levels of unemployment in the economic sectors, as well as smaller emphasis on full-employment objectives; a different, concentrated, pattern of income distribution; relative weakness in trade union organisation; mark-up pricing backed on the size of the market; the protection and oligopolistical price distortions that may be a consequence of ISI; and, the fact, that such imperfectness might render price increases through wage escalation even if there is a deflationary policy****. This

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** For a brief discussion on the subject see the background paper mentioned (pags. 65 to 68 and 138-9).

*** This is the point, for example, raised by Sir Roy Harrod (33) and by professor Harberger in Chile, Mr. Diaz Alejandro in Argentina, and Dr. Simonsen in Brazil, as it will be later seen.

**** This point was suggested by Mr. N. Warman.

(From overleaf)

* The Mexican experience may be helpful to understand the policy thought (see for example D. Shelton and R. Vernon (32).

will be explained in our case studies.

Monetarists in Latin America thus consent that an autonomous rise in wages can cause a rise in the general price level even if the money supply is held constant. If the money supply is indeed held constant in the face of rising wages it is likely that the level of output will be reduced and unemployment increased. This under the assumption that the level of activity falls to the level of costs that permits stable prices. Theoretically wages would be forced down and together with increases in productivity some other full employment at a different wage level would be achieved. It is said that this painful process has not always taken place in Latin America because monetary authorities have expanded the supply of money to permit the economy to move towards full employment, in the face of a higher level of wages.

An autonomous rise in wages (above the justified by productivity rises) should be easy to identify in a setting of stable prices preceeding the wage rise. But where the process goes from here is a difficult matter to determine. If workers are willing to see - or are forced into - the apparent wage rise partly or wholly eroded by subsequent price increases, then there is no reason to expect a spiral. If workers, on the other hand, bargain and receive a second rise to compensate the price increase, then a second round of price increases will be initiated. This is a case of wage inflation (presumably with full employment). In fact, where the setting is one of chronic inflation it is very likely that a spiral is in motion. However, it has been very difficult to determine whether the role of wages, in theory, has been autnonous or induced.**

In general terms it is believed by monetarists that autonomous wage increases were present in Argentina, where real urban wages were raised to unrealistic levels during the Peron era, and where strong trade unions remained after the general's fall. The process is said to be the following:

a) Wages increased autonomously (during the 1940's) above productivity rises.
b) Prices, employment, and output increased.
c) A wage spiral was set on.
d) After Peron's fall there were stronger deflationary efforts, but the reduction in activity did not bring wages down in the proportion needed to achieve stability.

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*This point was suggested by Mr. N. Warman.

**One is inclined to think that short-term analysis is very necessary. That is, to take a country, a specific period, and 'break' the spiral at some point to see what the behaviour of prices and wages has been like. Obviously much depends on the quality of the statistical information.

The possibility is also present in Chile and Brazil, due to the escalation in minimum wages. But, it is less probable because trade unions are weak in these countries. It is also said to exist in Colombia; but here it seems to arise from wage-drift or the demand for certain types of labour. On any case, structuralists will argue that in the long run one cannot emphasise this factor because in the last decade the share of wages in national income fell quite perceptibly.*

Summarising the controversy:

1- Monetarists will tend to argue that autonomous wage increases to some estent preceeded price increases (our P+1 assumption) in the spiral.

2- Structuralists will say that price increases induced wage escalation which resulted in further price raises (our P-1 assumption). Structuralists, base their argument on a regressive distribution of income; on monopolistical mark-ups; and, in the emphasis on bottlenecks where cost-push leads (although not wages!) and demand-pull follows.

Let us then return to the general case and explore it in terms of some empirical evidence. Initially, the only indicator found is the trend in nominal wages in manufacturing (Table V). We shall assume that the series reflect to some extent minimum wage escalation and 'transmit' their effects to the labour sector itself:

1- At first glance, there appears to be a close relationship between wages and prices, without a lag and especially in inter-country comparisons. Indeed, the higher the rate of inflation the higher the wage increases. One may even attempt to arrange the countries in that order - from the more inflationary to the least so in the period 1949-1965 - Brazil, Argentina, Chile, Colombia, Peru, Mexico and Ecuador. However, as encouraging as this looks for monetarism, no clear 'year-to-year' relationship is obvious.

2- Thus correlation coefficients were estimated for the two variables - unlagged, lagged for the monetarist assumption (P+1), and for the structuralist assumption, P+1 (See Table VI).

3- The first surprising fact is the monetarist argument is not really reflected in the correlation coefficient, except for a very brief period in Brazil (1963-65). In Peru and Argentina the coefficients are too low (0.3 and 0.4 respecttively) and, in any case are higher with the two alternative assumptions.

4- It is also surprising that in Brazil's long inflation - at least for a decade - there was no significant correlation between wages and

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*These points will be dealt with in Chapter 3, section (e) and Part III, C1, sec. a

TABLE V

Nominal Wages in Manufactures (W) and the rate of Inflation (P)

1949-1965

(annual percentage increase)

Country	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina(a)																	
W	31	24	29	22	9	17	12	13	34	41	57	39	27	18	29	42	-
P	29	33	33	38	5	4	13	13	25	32	114	27	14	38	24	22	29
Brazil (b)																	
W	12	16	16	11	2	47	32	22	19	15	37	-	-	-	98	85	50
P	10	4	8	25	20	19	20	22	19	15	37	35	38	52	75	85	61
Chile (c)																	
W	19	16	10	27	14	28	73	59	33	-	-	-	15	18	33	52	39
P	20	17	29	22	18	77	74	58	25	27	39	12	8	14	45	46	28
Colombia (c)																	
W	21	37	-2	-5	-	-	-	11	33	13	9	31	15	15	40	14	11
P	7	21	9	-3.2	8	9	-1.4	7	14	7	4	6	9	3	32	14	4
Peru (c)																	
W	30	24	10	11	10	3	3	12	6	12	13	13	7	11	6	9	-
P	13	14	10	6	9	5	5	5	8	8	13	8	7	5	7	8	16
Mexico (a)																	
W	7	11	10	5	7	9	14	9	6	9	11	10	5	9	17	19	7
P	6	4	13	15	-3	6	16	4	6	12	2	6	1	1	1	3	4
Ecuador (c)																	
W	-	-	-	-	-	-	-	-	-	-2	1	4	4	5	4	9	1
P P	1	0	12	3	0	3	2	-5	0	2	0	3	2	4	3	6	3

Sources: a) International Financial Statistics, IMF
b) Anuario Estadistico no Brazil, 1950-60
c) Statistical Yearbooks, UN, N.Y., 1955-67.

TABLE VI

Correlation Coefficient (r), Standard error (se), and Linear Regression (y=a+bx) for Nominal-wages in manufacturing (W), and the rate of Inflation (P), 1949-1965[a]

COUNTRY	P r	P s e	P y=a+bx	P+1 r	P+1 s e	P+1 y=a+bx	P-1 r	P-1 s e	P-1 y=a+bx
Argentina									
W	0.70	0.12	y=-9.3+1.4x	0.42	0.21	y=6.1+0.8x	0.33	0.22	y=10.3+0.7x
Brazil									
W(1949-1959)	0.39	0.25	y=12.5+0.3x	0.29	0.28	y=15.8+0.2x	0.09	0.30	y=15.4+0.04x
(1963-1965)	0.80	0.24	y=44.6+0.4x	0.92	0.08	y=7.1+0.7x	-0.89	0.12	y=117.6-0.6x
Chile									
W(1949-1957)	0.72	0.16	y=12+0.8x	0.11	0.33	y=34+0.13x	0.92	0.05	y=3.2+1.1x
(1961-1965)	0.86	0.12	y=-2.5+0.99x	0	-	-	0.86	0.11	y=-6.5+1.1x
Colombia									
W((1950-1965)	0.70	0.16	y=-0.4+0.56x	0.02	0.31	-	-0.33	0.28	y=15.1=0.3x
Peru									
W(1949-1964)	0.72	0.12	y=4.5+0.32x	0.51	0.19	y=5.4+0.2x	0.83	0.07	y=0.7+0.6x
Mexico									
W	0.20	0.26	y=3.8+0.2x	0.11	0.24	y=3.8+0.2x	-0.27	0.22	y=10.2-0.5x
Ecuador									
W(1958-1965)	0.76	0.15	y=1.6+0.4x	0.24	0.33	y=2.9+0.15x	0.17	0.34	y=2.2+0.11x

) Sources: See Table V.

and prices. There is further evidence of this in Table VIII where real wages - measured with the real minimum wage index for Guanabara, which is regarded as the most appropriate index in that country - are seen to lag sharply behind the cost of living index.* Thus so far it would seem that monetarists are correct when they assume that Brazil's inflation has been caused by demand-pull, reflected in the supply of money and budget deficits. Still, it is necessary to properly tsee the weight of the structuralist argument in terms of structural bottlenecks.

5-In Chile and Peru, on the other hand, the structuralist argument is present. The correlations are very high, so that wages seem to adjust with a year lag to the inflationary spiral. Something which may be taken to represent induced wage inflation.

6-For Argentina, Colombia and Ecuador the significant coefficients are found in the unlagged assumption. Something which may be taken as the significant for wage inflation, but indeterminate in terms of the controversy. Argentina's equation fit, however, ir rather poor and misleading, since the constant is high and negative. As it will be seen in the case study, the leading propagating factor of inflation has been exchange rate devaluation, with wage increases trailing behind.**

7-In Mexico, the least inflationary of the countries, there is no correlation between nominal wages and prices. Evidence that autonomous wage inflation is not present may be seen in Table VII and in Mr. A. Buira's analysis (34).

TABLE VII

Mexico: wages, labour costs, and prices, 1940-1965[a)]

Year	Cost of living 1954 = 100	Money wages[b]	Real Wages 1940= 100	Index of productivity	Index of labour costs[c]
1940	21.3	1.52	100	100	100
1945	45.2	1.90	59.2	-	-
1950	75.3	3.35	62.3	118	57
1955	116.0	6.34	76.7	-	-
1960	154.2	9.89	89.5	148	61
1965	169.1	16.00	132.0	159	83

*The regressiveness of income distribution is discussed in Chapter III section e.

**In fact, professor Harberger shows that the direct effects of wage increase on the price level were relatively small in Argentina and Chile - a 16% increase in wages causing the price level to rise by less than 1.3% for both countries (33 a).

Wages in Manufactures, (1945=100)[a]

Year	Cost of Living 1945 = 100	Average earnings	Real earnings	Index of labour costs[c]
1945	100	49.9	100	100
1950	167	81.1	91	73
1955	257	126.9	100	70
1960	342	197.1	123	75

a) Source: A. Buira, op. cit. (pags. 59 and 60)

b) Pesos per day

c) Costs per unit of output

'Real wages in 1960 were well below what they were in 1940, although they were higher than in 1950. This, continues the author, is not surprising in view of the abundance of labour and the weakness of the trade unions. On the other hand, a steady rise in productivity as real wages declined has dramatically reduced labour costs per unit of output below the 1940 level. This means that entrepreneurs were able to absorb very substantial increases in wage rates without an increase in labour costs per unit of output. Real wages in manufacturing fell below the 1945 levels during the postwar years and rose towards their 1945 levels only in 1955 and later... In any event, the result of lower, or at best, constant real wages and increased productivity was a substantial (25%) reduction in labour costs per unit of output. A long period of rising output per man coupled with falling or at best constant real wages, points to a redistribution of income. The Mexican industrial worker, by accepting a declining or at best static real wage, seems to have contributed heavily to the financing of the process of investment. It may well be said that autonomous wage increases over and above increases in productivity have not taken place. Consequently labour cost-push must be rejected as an explanation of rising prices in Mexico.

8-Although it may be dangerous to generalise on the Mexican and Brazilian experiences, it may be claimed that the monetarist argument does not appear to be present in Latin America. Following structuralism, it may be said that in the spirals the most likely thing is that wage adjustments followed price increases. There is indirect evidence of this in the income distribution argument presented by structuralists.

TABLE VIII

Brazil: Real Average Minimum Wage for Guanabara and Prices

(1958 = 100)

Year	Wages [b1] (1964 prices)	Wage Index	Cost of living
1952	31,800	88	35
1953	27.900	77	42
1954	35.600	98	50
1955	37.000	102	60
1956	37.6	104	73
1957	41.5	114	87
1958	36.3	100	100
1959	41.7	115	137
1960	34.8	96	185
1961	40.7	112	236
1962	38.1	105	390
1963	35.4	98	684
1963	35.4	98	684
1964	32.5	90	1270
1965	29.9	82	2050

a) Source: Estimated from M.H. Simonsen (op. cit.) pag. 41

b) Thousands of cruzeiros, monthly average.

Before going into frequent devaluation as a source of inflation in Latin America, which shall be treated somewhat apart because here monetarists and structuralists tend to come closer, it is convenient to see a few of the monetarist ideas around the subject of savings and investment. One could rhetorically claim that for monetarists the relation between inflation and savings may produce a "savings-bottleneck" cause-of-inflation.

d) The Likely Effects of Inflation on Savings and Investment

Monetarists believe that inflation has negative effects on savings and investment, while structuralists are more open to finding positive effects on the growth of savings and its channeling to productive investment in an inflationary situation. Monetarists like A. Harberger, F.R. Mikesell, G. Dorrance, professor Lutz and C. Schwartz, writing about Latin America, tend to agree and

emphasise the following negative aspects which bring forth their high priority of stabilisation. Indeed, the greatest effort of monetarists seems to concentrate on this field.

In general, the dangers of inflation in a very resumed manner are: the possibility of hyper-inflation, its underirable effects on savings, the misallocation of resources, its consequences on the inflow of foreign capital and on the balance of payments,* and the reduction of the standard of living of the majorities. Thus it is claimed that inflation may have adverse effects on voluntary savings, while its ability to force savings is limited or non-existing. Community savings are reduced, a significant part may be exported, and some are diverted from capital markets. Since inflations are erratic, the failure to anticipate and the disparity of pace blurs policy decisions and inhibits or mischannels investment. This for monetarists can have many consequences. It will mean that fewer growth innovations will take place. The real rate of interest may become negative and a sufficiently accurate cost accountancy becomes impossible, making a rational investment policy difficult. It leads to improductive forms of investment: accumulation of inventories and other short-term investment, gold and foreign securities, real estate and housing for the wealthy, cuts in export investments, etc. Relative price changes which are necessary to overcome bottlenecks result ineffective for resource allocation in an inflationary environment, where every enterprise seems profitable, where nobody is threatened by losses, and where the degree of uncertainty is so great that shifting resources does not seem worthwhile. Lastly, some monetarists claim that inflation affects negatively income distribution. That is, it raises social costs quite out of proportion to the favourable effects it might have on capital accumulation. Forced savings, if they occur, result from a change in income distribution in favour of profit income, a large part of which will be invested.** On to this it is added the discouragement of foreign capital*** and pressures on this balance of payments.

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*It must not be overlooked, however, that balance of payment problems may arise quite independently from domestic inflation. A shift from consumption to investment tends to raise the demand for imports no matter what happens to the level of income, since in UDC the import content of investment goods exceeds that of consumer goods; and fluctuations in foreign trade prices may inject inflation into the economy.

**There is an apparent contradiction here: if forced savings occur through inflation total savings would be raised. Monetarists, however, emphasize simplistically that this is unlikely, in such a way that total savings are reduced. ../s

(Continued overleaf)

***Overleaf

Theoretically, monetarists form part of the neo-Keynesian theory around the determination of the liquidyty preference and the rate of interest, as well as on the field of expectations.* Let us remember here only the major aspects of the subject in terms of Latin-American monetarism.

As it has been seen the monetary system operates on the assumption that money serves as a satisfactory medicm of exchange, numeraire, standard for debt repayment, and store of value. If prices are stable or only rising slightly money will be accepted for all these purposes. But if prices rise steeply, individuals and firms will cease to hold money for the latter two of these purposes. Moreover, if prices are not expected to remain stable, the economic adjustment would be different from a situation in which price stability is expected. The problem is, of course, that the degree of price change required to influence expectations is not only indeterminate in any particular case, but will depend on price behaviour in previous years, it will differ from country to country, and between countries with similar monetary experiences.

Inflation has thus two effects on the desire for liquidity, which depend on the speculative and precautionary motives.** Inflation increases the value of effective liquidity, thereby rising the community's desire for it, but it makes the most generally accepted store of liquidity money and financial assets denominated in money-unacceptable sources of protection. This desire for liquidity and weakening of the usefulness of the traditional store of liquidity will exert their greatest influence on the types of investment undertaken during periods of inflation; but, it is claimed, will also work to reduce the total flow of resources available for investment. If inflation proceeded at a uniform pace, it might have little effect on the liquidity preference. In practice, the rate of inflation is unpredictable and its variations are likely to become more pronounced as the average rate inflation increases. With the future uncertain, the probability of unpredictable investment opportunities arising, or difficulties occurring, is increased. Hence the desire to hold liquid assets for speculative and precautionary purposes is strengthened. However, during an inflation money and financial assets

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(from overleaf ** The point would be that through inflation the structure of savings and investment are negatively affected in terms of long-term production investment, and perhaps reduced. This will be discussed below.

*** The inflow of foreign savings and investment will firstly depend on the protection of legislation adopted by the recipient country in terms of profit remittances. But, it is also true that chronic inflation will induce such a protection which would curtail foreign investment. This will be discussed below.

*See the background paper mentioned (pags. 15 to 26 and 32 to 39).

** We shall abstract from the transactions motive because, in a setting of chronic inflation, it may be unwarranted to generalise. One can only say that involuntary holdings of financial assets would have to increase in an inflationary spiral.

denominated in money cannot be depended on as stores of liquidity, since they decline in real value as prices rise. In these conditions, attempts will be made to acquire assets whose value is expected to rise in the interval before the investment opportunity of other occasion for disbursement arises. This flight into non monetary assets is the source of many of the distortions which accompany an inflation and is a partial cause of the decrease in the flow of resources to investment, according to orthodox theory.

With these general comments and introduction the next step is to go in with some detail into our inflationary Latin-American economies in the light of monetarism. The exposition relies heavily on Mr. G. Dorrance (35) and includes the following headings: domestic saving, excluding government; foreign capital; inventory investment; housing; business fixed assets.*

(i) Domestic Savings. A considerable part of the community's savings, writes Mr. Dorrance, takes the form of the accumulation of financial assets. In most UDC, money forms the major part of the community's financial assets. Even in DC, financial assets denominated in money (money itself, time deposits, bonds, etc.) absorb a large part of total savings. The willingness of individuals and firms to hold an expanded quantity of money or financial claims is supposed to depend on their expectations regarding the future price levels. If prices are expected to rise markedly holders of money will try to limit any increase in the money value of their holdings, or may even attempt to dispose of them. Historically, the ratio of money to income in all but the wealthiest countries has tended to rise, and what monetarists claim is that in the inflationary countries this ratio has declined. For Latin-America the point would be that those countries with the severest inflation, the volume of savings accumulated in the form of money and quasi-money has been quite small, whereas in the less inflationary countries these accumulations have been substantial. It is thus convenient to examine the proposition in terms of the selected Latin-American economies (See Table IX).

Where data was available, the changes in the ratio of money to income reveals that in all countries, except for Colombia, the ratio has declined (as compared with DC where it has increased). Moreover, the decline was higher in the most inflationary countries, Argentina and Chile. The simpler comparison of the value in terms of constant prices, of the increase in money and quasi-money presents

*Pressure on the balance of payments arising from inflation will be dealt with the subject of devaluation in a later part of the cahpter and the influence of ../..

Rates of Inflation and Increases in Money and Quasi-Money[a)]

In Percent (1958-1965)

Country	Average Annual Increase in Prices (1958-65)	Average Annual Rates of Change in Ratio of M to income	Changes in Real Value = of holdings of b) M	M and QM
Argentina	29.0	-3	-36	-33
Brazil	42.5	-	24	18
Chile	22.4	-3	64	104
Colombia	11.0	2	44	58
Peru	9.2	-2	35	60
Uruguay	31.3	-	18	2
Mexico	2.6	-1	86	83
Bolivia	7.6	-	93	84
Ecuador	3.3	-	50	57
Paraguay	5.6	-1	33	77

a) Sources: International Financial Statistics, IMF

b) Given by M/L - 100, where M is the 1965 index (base 1958-100) of money or money plus quasi-money and L is the 1965 index (base 1958-100) of cost of living.

a more controversial issue. First, it is true that in the countries with the highest rates of inflation - Argentina, Brazil, and Uruguay-, the volume of savings accumulated in the form of money and quasi-money has been quite small - in Argentina it has declined; and second, in the less inflationary countries - Colombia, Peru, and Mexico and Ecuador - these accumulations have been more substantial. But, thirdly, the exceptions render the comparison inconclusive. Chile, with one of the highest rates of inflation, has the highest accumulation! (Paraguay and Bolivia have considerable increases in money and quasi-money holdings after their sharp falls in their rates of inflation). Fourth, it should be remembered that this comparison is limited to changes in the value of these holdings. It does not take account of any changes in the real value of transactions which these holdings are required to finance. Fifth, saving in the form of money accumulation is only one part of saving through the acquisition of financial claims; and, a large part of money accumulation is involuntary. Nonetheless Mr. Dorrance is right in claiming that severe inflation seems to reduce a potential source of investment (with the exception of Chile).

However, other holdings of financial assets are voluntary. These are likely to rise less (or fall more) than those of money if prices are expected to rise. Let us then try to illustrate this monetarist argument with the cases of Argentina, and Brazil (See Table X). For the monetarist argument to hold true - inflation reduces quasi-money and the holding of other financial assets - money holdings would have had to increase more rapidly than the rest. This is only partially true for Argentina because money holdings in current prices increased 2½ times and quasi-money 22 times. However, it is very true that the private holdings of public debt have remained stagnant. Moreover, in real terms (deflating prices with the cost of living index where 1958=100) the monetarist argument holds: between 1950 and 1965 there was a decline in the value of money holdings and in other financial assets. In Brazil the situation is more clear. Holdings of money between 1950 and 1965 rose 116 times (in real terms, deflating with the price index, there was a drop in value) while holdings of quasi-money only rose 1¼ times (in real terms there was a sharp decline). Although the holdings of government securities and life insurance has increased considerably at current prices during 1950-64, in real terms inflation has eroded their value to a negative figure. In general terms, monetarists thus claim that forced savings are usually offset by the decline in value.

It is true that this argument says nothing more than that one element of saving will be reduced. Yet, says Mr. Dorrance, it is an important element accesible to nonproperty owners, specially in UDC. Individuals who forego money savings will divert some of their savings to other forms. However, since consumption is also an alternative if money is unattractive it is bound to be associated with a decline in total savings.

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* ../..inflation on income distribution has been left for a different chapter, (Chapter III, Section e).

TABLE X

Holdings of Some Financial Assets by the Private Sector, 1950-65 [a]
(Billions of Cruzeiros and Pesos)

End of Year	B R A Z I L			A R G E N T I N A		
	M	QM	Government Securities	M	QM	Government Debt
			Life Insurance			
1950	78	19	10	25	11	3
			3.6			
1951	91	20	9	30	11	1
			8.5			
1952	104	21	9	34	12	2
			9.6			
1953	124	22	9	43	15	3
			11.1			
1954	151	25	9	52	18	3
			12.6			
1955	178	24	9	61	20	4
			14.2			
1956	217	25	9	71	29	2
			17			
1957	291	29	8	82	30	1
			19.4			
1958	353	33	18	119	41	1
			24.6			
1959	501	39	29	170	45	1
			28.2			
1960	692	57	34	219	60	3
			32.2			
1961	1042	67	35	243	75	3
			40.3			
1962	1702	71	67	250	86	
			52.7			
1963	2792	106	78	322	123	
			77.3			
1964	5191	172	58	459	178	
			169.4			
1965	9104	265	-	592	241	
			-			

a) Source: International Financial Statistics, IMF

With respect to personal savings, the effect of inflation will depend on what happens to wages, salaries, and pensions, and how the distribution of income is changed. For monetarists, however, forced savings are unlikely and detrimental to growth. As it has been said in reference to wages and the ten Latin-American economies (see the previous section), the effect of chronic inflation may reduce real earnings.

In the early stages of a mild inflation, the belief that prices will not rise too much may well lead wage earners to accept nearly constant wages, and pension plans with fixed money payments. In such a case, there might be a shift in income distribution from the low-income groups to the wealthier profit receiving sector. What happens to savings depends on the propensity to save of the latter. If the high-income Latin-American sector has a high propensity savings should increase, but if luxury consumption and the demonstration effect are rampant the opposite is true. Also, inflation would tend to misallocate investment.

Once wage earners realise that their real value is likely to or has declined, they will press for higher wages or for adjustments which will ensure the maintenance of the real value of their earnings. At the same time, employers, with rising money profits, will be willing to compete for workers by paying higher wages. Similarly, pressure will be exerted for the adoption of escalator clauses in wage and pension contracts, whether in terms of the cost of living, the level of minimum wages, or some similar escalating provision. This process will result in a shift in income distribution from the wealthy to the low-income sector. However, the empirical evidence of the previous section points to the opposite. See also chapter III, section (e).

With respect to business savings, monetarits claim* that strong inflation will bring forth two specific pressures encouraging business to distribute, rather than to reinvest, current earnings. The higher desire for liquidity which presumably results from inflation will discourage long-term investment and hence encourage the distribution of profits. And second, in their search for liquidity and profitable investment, investors are likely to shift from domestic to foreign investment. If this happens, share-holders will press managers to distribute profits, so that the proceeds may be transferred abroad.

Comparative statistics of company practices are almost non-existant. However, indirect prrof for Mr. Dorrance may be looked for on the activities of corportions controlled by US residents in Latin-American countries:

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* See again Mr. Dorrance (37).

Foreign Companies Controlled by US Residents: Percent of Earnings Retained (1957-1960)

COUNTRIES	AVERAGE PRICE INCREASE	EARNINGS RETAINED
Argentina	47	46
Brazil	31	52
Chile	24	14
Colombia	7	58
Peru	9	16
Mexico	5	22

Source: Survey of Current Business

With this evidence, one can only conclude that, for these countries and for this short period, the monetarist argument does not hold. Because the countries with the highest inflation, excluding Chile, retained the largest percentage of earnings; and, the countries with the mildest inflation, excluding Colombia, retained a very small part of earnings.*

In an inflationary economy foreign financial assets serve to protect liquidity. Insofar as the expectation of price increases, as a concomitant, an expectation of exchange depreciation, domestic claims will be expected to decline in real value, whereas foreign claims will not. Consequently, it may be expected inflation will lead to an increase in the desire to hold foreign assets, and that savings will be diverted from the purchase of domestic assets to the purchase of foreign assets. Again, this will depend on the existence - and effectiveness - o an exchange rate control.

Statistics on the purchase of foreign assets by residents of countrie experiencing inflation are not available. However, it is possible to illustrate this monetarist argument with a partial case for Mexico, remembering that Mexican inflation is relatively very mild (see table XI). The yearly relation between sharp price increases and large purchases of short-term foreign assets in Mexico seems to be very close.

*The explanation of the opposite reaction, suggests Mr. Warman, may simply lie in that it is not merely inflation but profit remittance legislation which controls the distribution and export of profits. Hence Mr. Dorrance's proposition is inadequate. We shall return to the subject below.

TABLE XI

Inflation and Net Purchases of Short-Term Foreign Assets
For Mexico, 1951-65

Year	Annual Change in Prices	Purchases of Foreign Assets (Millions US Dls)
1951	15	9
1952	-3	21
1953	6	2
1954	16	44
1955	4	-23
1956	6	-15
1957	12	17
1958	2	27
1959	6	-9
1960	1	-4
1961	1	12
1962	1	-1
1963	5	6
1964	4	8
1965	4	-12

Source: Balance of Payments Yearbooks, IMF.

(ii) Foreign Capital. In addition to the reduction of domestic savings, monetarists argue that inflation will reduce the inflow of foreign capital.* A major part of private international capital transfers arises from equity investment by non residents. This flow is largely in the form of direct investment, which can go either to traditional staple-exporting activities or into new industrial fields - where a hold on the national market is important. The first type of these investments is largely in function of its expected return, the second less so. Now, inflation may be expected to raise the money return on investment. If the exchange rate could be expected to depreciate at the same rate that prices increase inflation would have a neutral effect on foreign envestment. However, as it will be seen below, the exchange depreciation is likely to be more severe than the

*The point is also presented by professor Mikesell (39).

TABLE XII

Movements in Private Foreign Capital (PFC) and Changes in Prices, Unlagged (P) and Lagged (P-1)

(Millions of USA dollars 1950-65)

Year	Argentina			Brazil			Chile			Colombia		
	PFC	P	P-1	PFC	P	P-1	PFC	P	P-1	PFC	P	P-1
1950	47	33	29	-82	4	10	-6	17	20	6	21	7
1951	15	33	33	75	8	4	40	29	17	11	9	21
1952	9	38	33	653	25	8	33	22	29	0	-3½2	9
1953	11	5	38	-363	20	25	61	18	22	16	8	-3.2
1954	15	4	5	-6	19	20	-37	77	18	83	9	8
1955	36	13	4	68	29	19	-4	74	77	-17	-1.4	9
1956	154	13	13	240	22	20	24	58	74	66	7	-1.4
1957	114	25	13	341	19	22	49	25	58	-79	14	7
1958	7	32	25	275	15	19	-8	27	25	4	7	14
1959	102	114	32	251	37	15	-29	39	27	-5	4	7
1960	332	27	114	138	35	37	-11	12	39	-9	6	6
1961	-18	14	27	147	38	35	52	8	12	1	9	6
1962	72	38	14	132	52	38	36	14	8	0.4	3	9
1963	78	24	38	87	75	52	-30	45	12	1	32	3
1965	-	-	-	42	61	85	-5	28	46	-	-	-
1964	27	22	24	86	85	75	-9	46	46	66	17	32
Correlation		Neg.	Neg.		Neg.	Neg.	-	-0.5	Neg.	-	Neg.	Neg.
Coef.								y=37.3-0.35x				

Source: Balance of Payments Yearbooks, 1955-65, IMF, and Economic Survey of Latin America, 1966, UN, N.Y.

Year	Uruguay			Peru			Mexico			Bolivia			Ecuador			Paraguay		
	PFC	P	P-1	PFC	P	P-1	PFC	P	P-1	PFC	P	P-1	PFC	P	P-1	PFC	P	P-1
1950	20	-4.7	5	12	14	13	124	4	6	-3	0	11	1	0	1	4	-	-
1951	10	15	-4.7	36	10	14	129	13	4	3	0	0	-3	12	0	10	-	-
1952	57	15	15	44	6	10	43	15	13	-1	100	0	-1	3	12	-3	117	-
1953	-9	6	15	37	9	6	-41	-3	15	-3	100	100	2	0	3	-2	73	117
1954	-8	12	6	23	5	9	64	6	-3	-1	125	100	9	3	0	4	20	73
1955	-10	8	12	30	5	5	142	16	6	3	78	125	-1	2	3	3	24	20
1956	10	7	8	72	5	5	108	4	16	3	181	78	12	-5	2	-3	21	24
1957	31	15	7	100	8	5	195	6	4	10	116	181	6	0	-5	-4	16	21
1958	14	18	15	102	8	8	149	12	6	-7	3	116	5	2	0	8	6	16
1959	-1	40	18	56	13	8	100	2	12	-3	20	3	10	0	2	5	10	5
1960	37	39	40	13	8	13	35	6	2	0	12	20	4	3	0	8	8	18
1961	5	22	39	13	7	8	119	1	6	11	8	12	8	2	3	1	18	8
1962	-	-	-	6	5	7	127	1	1	10	6	8	3	4	2	2	1	18
1963	-	-	-	27	7	5	117	1	1	8	-1	6	4	3	4	3	2	1
1964	-	-	-	13	8	7	151	3	1	2	11	-1	7	6	3	4	1	2
1965	-	-	-	20	16	8	156	4	3	-	-	-	-	-	-	4	4	4
Correlation Coef.		Neg.	Neg.		Neg.	Neg.		Neg. -0.4 y=9.8-0.04x			Neg.	Neg.	-0.55 y=4.4-0.5x	Neg.		-0.6 y=33.2-4.8x	Neg.	

TABLE XIII

Inventory Investment (II) and the Rate of Inflation (P)[a]

(percentage)

Year	Argentina		Brazil[b]		Chile		Colombia		Peru		Mexico		Ecuador	
	II	P	II	P	II	P	II	P	II	P	II	P	II	P
1951	-	33	10	8	6	29	-	9	16	10	-	13	17	12
1952	-	38	25	25	-9	22	-	-3. 2	9	6	-	15	12	3
1953	-	5	15	20	337	13	-9	8	7	9	-3	-3	26	0
1954	-	4	19	19	-20	77	-1	9	10	5	29	6	18	3
1955	1.7	13	8	20	-2	74	-8	-1.4	9	5	20	16	17	2
1956	-2.8	13	8	22	21	58	7	7	7	5	18	4	14	-5
1957	-0.5	25	15	19	-7	25	34	14	9	8	17	6	16	0
1958	-0.7	32	12	15	-3	27	16	7	11	8	17	12	17	2
1959	7.3	114	19	37	5	39	12	4	16	13	17	2	11	6
1960	4.7	27	16	35	5	12	13	6	0	8	14	6	15	3
1961	-2.1	14	8	38	3.2	8	13.6	9	15.4	7	11	1	13	2
1962	-1.5	38	12	52	2.6	14	4.4	3	10.2	5	11	1	14	4
1963	-6.8	24	16	75	0	45	9.2	32	8.6	7	10	1	14	3
1964	7.1	22	15	85	2.4	46	10.6	17	7.8	8	10	3	16	6
1965	6.9	29	-	-	2.0	28	8.7	4	6.2	16	11	4	15	3

a) Source: Yearbook of National Account Statistics, United National and statistics of National Income, IMF

b) Excluding stockpiling of coffee and cotton.

increase in prices. Hence, the net return to foreign investors in inflationary countries may be expected to deteriorate. Therefore, the flow of equity capital will probably diminish.

One of the effects of inflation is a deterioration of the foreign balance and this will induce the government to take protective action. One of these actions may be the restriction of the repatriation of profits. At the first sight of inflation then, nonresident investors will fear restrictions of this kind and will refrain from investing. This is apparent in the following figures for United States investment in some of our countries:

Average Increases in Value of U. S. Private Direct Investment (percent)

Countries	Average Annual Increase in Prices (1948-65)	Changes in Value 1950 - 1961
Argentina	21.4	78
Brazil	24.0	55
Chile	22.6	34
Colombia	8.4	120
Peru	7.8	201
Uruguay	17.4	-11
Mexico	5.3	98

Source: Survey of Current Business

It may be seen that in the countries with the highes rate of inflation the increase in value of foreign US direct investment was lower and negative in Uruguay, and vice versa. The exception of Argentina may be accounted for by the fact that in 1959-60 there was a sharp increase in foreign investment (mainly in the newly opened sector of petroleum to foreign investment, as part of the stabilisation programme. However if we now turn to total movements in foreign private capital, the conclusion no longer holds (See Table XII). However, in order to follow monetarism, assume the following: the higher the rate of inflation the likelier the external imbalance and the devaluation of the exchange rate, the more the external controls to foreign investmentand the lesser the private investment. This negative relationship between higher prices and foreign private capital is simply not present in the inflationary countries, with some exceptions.

1.- At first glance no year to year or trend relationship can be seen. Thus the fact that inflation may accelerate is not reflected in a reduction in these capital movements. All one can say is that private capital movements have fluctuated enormously but with no apparent relation to prices. In some countries - Argentina, Brazil and Peru - private capital tended to increase up to some point in the late 1950's, and after that it declined. In others - Chile, Colombia, Uruguay, and Paraguay - it has simply had erratic fluctuations.

2.- It should be noted that in Argentina and Chile private foreign capital increased as a result of the stabilisation programmes; 1959-60 and 1956-57 and 1961-62, respectively. But, in two of these cases these were periods of severe 'open inflation' (See Part III. Chapter 2, sections b and C)

3.- Nonetheless, linear regression analyses was tried and, as expected, the coefficients were mostly negligible. There were, however, some weak correlations in Chile, Mexico, Paraguay, and Ecuador. In Chile and Paraguay coefficients of - 0.5 and - 0.6 would indicate that the higher the annual change in prices the lower the foreign private investment. In Mexico (-0.4) it appears also that as inflation became milder private capital was attracted; and the same applies to Ecuador (-0.55). However, it is more likely that these last two relations are 'accidental' since Mexico and Ecuador are the least inflationary countries of the group and have no exchange rate controls.

4.- Thus a fair over-all conclusion is that strong inflation does not seem to be an important factor in determining the inflow of foreign private capital One may best look for the reasons in its behaviour in the exchange rate policy and the foreign investment legislation of each country. In fact, one should try to correlate periods of frequent devaluation with an outflow of capital.

5.- One last point should be mentioned. The exercise may also be taken to disprove the alternative assumption+ an inflationary setting with its promise of rapid profits (provided remittances are flexible) does not seem to attract foreign private capital.

Aside from private capital and the distribution of dividends of foreign companies - and following Mr. Dorrance -, the monetarist analysis suggests that inflation is likely to produce forces which diminish the conventional resources and effectiveness of investment. Thus they claim that savings in money, quasi-money and other financial assets are likelier to be lower than under stable monetary conditions and that the investment criteria will be distorted to the detrimen

of growth.* Let us examine superficially what may happen to investment decisions according to monetarism.

(iii) Inventory investment

If money and financial assets denominated in money, writes Mr. Dorrance, cease to protect liquidity other sources of protection will be looked for. The accumulation of inventories is one way of holding assets whose real value is likely to be maintained in the face of rising prices. Thus monetarists expect inflation to encourage the accumulation of inventories and to stop the purchase of financial assets - which would have implied some long-run investment. In addition to the illiquidity attached to long-term fixed investment, there is the element of uncertainty. And in an environment of unstable prices and rising costs, the long gestation period of investment renders an indeterminate cost. Because of these two factors, once an inflationary spiral is on, a marked diversion of investment towards inventory investment may be expected. In the latter stages of prolonged inflation, the ratio of inventory investment to fixed investment may be expected to be somewhat higher than it was in an initial stage, but it should be less than in the early stages of inflation.

Let us explore the proposition, according to the available information ((See Table XIII). Comparing the stock of inventory investment as a % of gross investment with the flow represented by changes in prices, some rather peculiar evidence appears to be present. It is true that in Brazil Colombia, and Peru, chronic inflation is associated with a tendency to increase inventory accumulation from 1951-53 to 1964-5. Moreover in the least inflationary countries of the group - Mexico and Ecuador - the opposite is true. In Mexico as the rate of inflation fell new inventory investment tended to decrease. And with Ecuador's mild inflation the proportion of inventories has tended to remain constant. But, what appears bewildering is that the percentage of inventories should be larger in these countries with mild inflation as compared with the more inflationary ones. A further contradiction is present in Argentina and Chile. In neither of these two countries is there a relation between prices and inventory investment. In Argentina - during the decade for which there was relevant information - all that one can say is that in years of economic crisis (1959-60 and 1964) inventories were formed; but this bears no apparent relation to the inflationary spiral. In Chile the relation, if any, is even more ambigous: years of fast inflation appear to be accompanied by a depletion of inventories, and vice-versa. Perhaps this contradictory experience suggest that 'other factors' - whether economical,

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*This should not be taken as a final conclusion, especially in terms of empirical evidence where the issue is quite controversial. For example, Dr. J. Torrent - in his recent unpublished thesis - found strong evidence of an inverse ... / ..

TABLE XIV

Inventory Investment (II, at market prices) and the Rate of inflation, 1951-1965

(millions or thousands of millions in domestic currency)

		1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina	II	-	-	-	-	696	-1863	-1170	796	7812	6474	-5038	-4800	-21400	29100	40200
	P[a]	-	-	-	-	13	13	25	32	114	27	14	38	24	22	29
	P-1	-	-	-	-	4	13	13	25	32	114	27	14	38	24	22
Brazil	II	8.6	17.0	2.7	22.5	13.5	16.1	32.5	25.4	66.1	68.2	48.0	106.0	100	410	-
	P	8	25	20	19	20	22	19	15	37	35	38	52	75	85	-
		4	8	25	20	19	29	22	19	15	37	35	38	52	75	-
Chile	II	-	-	12	0	-2	28	-18	-9	21	22	23	21	0	49	51
	P	29	22	18	77	74	58	25	27	30	12	8	14	45	46	28
	P-1	17	29	22	18	77	74	58	25	27	39	12	8	14	45	46
Colombia	II	171	159	-146	-20	-2	179	890	524	488	650	755	268	677	934	695
	P	9	-3.2	8	9	-1.4	7	14	7	4	6	9	93	32	17	4
	P-1	21	9	-32	8	9	-1.4	7	14	7	4	6	69	3	32	17
Peru	II	0.6	0.7	0.6	1.4	1.2	0.9	1.2	1.0	0.5	2.8	1.9	1.6	1.9	1.3	1.4
	P	10	6	9	5	5	5	8	8	13	8	7	5	7	8	16
	P-1	14	10	6	9	5	5	5	8	8	13	8	7	5	7	8
Mexico	II	-	-	-243	3335	2250	3024	3247	3219	3392	2940	2044	2973	3270	3924	4846
	P	13	15	-3	6	16	4	6	12	2	6	1	1	1	3	4
	P-1	4	13	15	-3	6	16	4	6	12	2	6	1	1	1	3
Ecuador	II	172	109	295	263	274	228	257	261	191	225	283	306	328	519	382
	P	12	3	0	3	2	-5	0	2	0	3	2	4	3	6	3
	P-1	0	12	3	0	3	2	-5	0	2	0	3	2	4	3	6

Source: Yearbook of National Account Statistics, 1957-65, UN, N.Y.

a) unlagged prices

b) Inventory investment of year one and prices for the previous year (P-1)

technological or as a consequence of policy measures - are more determinants in the formation of new inventories than inflation as such.*

However, so as to be able to compare statistically the two variables as flows, the next step is to try to establish a correlation between the monetary value of accumulation of stocks and the rate of inflation (with lagged and unlagged assumptions), That is, as inflation advances there is a greater accumulation of inventories. In Table XIV one can see that the value of stocks at market prices has tended to increase very much - except in Argentina where it has fluctuated sharply - as a result of inflation. One would have expected that - because of the speculative and transactions motivies and the implicit price increase in stocks in an inflationary setting - the correlation between such a formation and the inflationary pace would have been high. As it was said, linear regression was applied, but the coefficients were negligible in all cases, except for Brazil and perhaps Colombia. The results for these countries were the following:

Brazil:	P:	r=0.83;	y=21.5+0.18x
	P-1:	r=0.86;	y=17.6+0.15x
Colombia:	P:	r=0.44;	y=4.6+0.01x
	P-1:	5=0.39;	y=5.4+0.01x

Resuming, with the above evidence it is impossible to generalise - let alone affirm - that inventories have followed price movements in our countries, except for Brazil. The exercise thus suggests that a thorough investigation of the structure of savings and investment is necessary before one can ascertain the long-run impact of inflation on the composition of investment in Latin-America.**

(iv) Housing

Apart from inventory investment, it is suggested that an inflationary economy is characterised by excessive investment in luxury housing - form of long-term investment that also depends on the propensity to save of the high income groups. Inflation is expected to encourage the demand for houses, either for occupation or for rent. In an inflationary economy governments can be expected to control money rents. Hence the returns are prevented to rise in step with the increase in the level of prices. The outcome may be that savers buy houses for themselves, and stop investing in rental property.

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*Stated in these terms this would be a new field of study.

**Mr. N. Warman suggests that one test could be to relate the changes in total inventories, as part of aggregate supply, with movements in wholesale prices and corrections in accounts for depreciation and devaluation. This would require a highly sophisticated information and exercise.

../..* correlation between inflation and private investment in Colombia (1953-64); but the opposite for Brazil during the 1950's (39). The Brazilian example, however, has gone sour in the 1960's (See Chapter III, e).

Data on the distribution of expenditure between housing and other forms of investment are scarce, and data on housing investment for owner occupancy are almost nonexistent. However, an indirect measure on the effect of inflation on the demand for building materials may be illustrative (see Table XV). This seems to be consistent with the monetarist argument that inflation leads to a rise in the relativa demand for buildings, as distinct from other forms of investment - with the exception of Paraguay.

TABLE XV

Comparison of the General Wholesale Price Index and Prices of Building Materials

(1959, where 1953=100)

COUNTRY	WHOLESALE PRICES	BUILDING MATERIAL PRICES
Brazil	305	354
Chile	1053	1086
Colombia	187	203
Peru	181	187
Mexico	143	161
Paraguay	297	193

Source: A.S. Shaalan, Impact of Inflation on the composition of private domestic inflation, Staff Papers VOL. IX (1963), pags. 259.

Another indirect measure could be the relation between the rate of inflation and the over-all construction rate (See Table XIV). However, except for Argentina where as inflation proceeded construction advanced, there appears no relation. Indeed, the opposite may be true for Brazil and Uruguay: the rate of inflation has increased, while the construction rate has diminished even to a negative rate.

(v) Business Fixed Assets

The pressure exerted by inflation on the allocation of investment varies according to the different types of fixed assets. Some activities (such as rail-

TABLE XV

Rate of Inflation (P) and Annual Change in Construction (C) 1950-1965

(Percentage)

COUNTRY	1950 - 1955		1955 - 1960		1961		1962		1963		1964		1965	
	P	C	P	C	P	C	P	C	P	C	P	C	P	C
Argentina	18	-	37	3.2	38	6.7	24	-4.2	22	-4.8	29	8.8	32	10.2
Brazil	19	7.6	29	7.2	52	9.7	75	0.4	85	1.5	61	2.2	46	0.7
Chile	48	9.0[b]	20	- 0.1[b]	14	37.1	45	7.8	46	-9.6	28	6.6	23	44.1
Peru	7	10.6	8	-2.0	5	18.0	7	18.5	8	7.0	16	10.4	9	13.0
Uruguay	11	5.8	23	2.9	11	-8.8	21	-15.7	43	-10.6	56	-7.3	73	-
Mexico[c]	-	-	-	-	1	0.1	1	1.8	3	15.7	4	16.4	4	-3.0
Ecuador[c]	3	8.0	0	10.6	4	-1.1	3	1. 9	6	- 2.1	3	4.4	6	-
Paraguay	51	3.5	13	10.2	1	-9.5	2	12.8	1	2.4	4	4.5	3	2.8

a) Source: Economic Survey of Latin America 1966 and 1965, United Nations

b) 1950-1953 and 1954-1959, respectively.

c) Only the building sector.

road transport) require long-lived equipment, while others (such as road transport) require much shorter-lived equipment. Some of these investments then involve long-term commitments and will be influenced by expectations. If investors belive that the future prospectives will be similar to those of the present, or if they can reasonably expect that changes will be foreseeable, they can have a firm basis for their decisions. Technological factors will then be the primary determinants of both short and long-term investment. But if investors expect rapid changes in basic economic relations, they will be hesitant to invest for the long-run. If capital investments may be amortised quickly, an investor has more opportunities to revise his decisions. The expectation of rising prices will therefore bias investors towards fixed assets with relatively short-lived lives. For these reasons, monetarists feel that inflation may be accompanied by the discouragement of long-term industrial investment and social investment, and by the flow of resources where returns are obtained more quickly.*

On these arguments - and on the scanty and somewhat contradictory evidence collected here -, monetarists claim that inflation is likely to produce forces which divert savings to an excessive accumulation of inventories and luxury housing, rather than to productive long-term investment and popular housing. Of the productive investment actually made, a bias will develop towards short-term projects, while resources may be diverted from low-cost production, basic necessities and investment goods to the production of consumer goods, particularly luxuries.**

e) Economic Distortions, Price Controls and Induced Bottlenecks.

The field where monetarists and structuralists most clearly clash, both in theory and in policy making, is that one which refers to the working of the price system. Inflation for monetarist is also 'caused' by the economic distortions which appear on the price mechanism when price controls and some other kinds of government intervention are instituted. This intervention then creates bottlenecks which become inflation induced bottlenecks. They thus believe that the way-out of inflation implies a set of equilibrium prices which would remove bottlenecks. Structuralists do not agree: they believe that bottlenecks themselves are a major cause of inflation - and not vice versa - and that public intervention in prices is a necessary instrument of growth. The controversy, of course, has fundamental implications with regard to the objective of price stability and its implementation.

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*These arguments are related to the influence on inflation of price distortions and controls, foreign-sector controls, and inflation induced bottlenecks which shall be discussed in the next section. Also see my paper (pags. 32-42, 97-111) on the rate of interest.

**The subject of savings, investment and inflation is taken up again in the context of import substitution industrialisation (Chapter 3, Section d) and the case study work (Part III, Chapter 2).

Monetarists are obviously aware of the existence of supply rigidities in Latin America. These, as we have repeatedly said, are considered by them as a consequence rather than a cause of inflation. They claim that they are distortions either created by price expectations built up during the long inflation and by supply inelasticities which were the result of distortions in the structure of relative prices due to controls. The first type, as it has been seen above, refers to inflated inventories, fixed asset investment, foreign capital reductions, luxury construction, etc. The second type, of which something will be said here, refers to price controls - underpriced public services, control of agricultural prices, an overvalued exchange rate and industrial protection. That is, an inadequate capacity to import, power and transport bottlenecks, and a poor rate of agricultural output are recognised, as in the structuralist analysis, as key points; with the basic difference that they are treated as inflation induced.

The relative profitability of investment in any activity is a function of the prices of final output rendered possible by the investment, compared with the prices of other final outputs which could be achieved by alternative investment. Now, governments frequently attempt to restrain inflation by imposing controls on the prices of basic commodities and community services. Under these circumstances, the general rise in other prices is equivalent to a relative fall in the prices of the basic necessities or services. If price controls are not accompanied by subsidies to the produces of these goods and services, investment in their production will become relatively unprofitable and will be discouraged. Consequently, monetarists claim, if the consumer is protected from inflation, the result may be a diversion of investment, so that in the end he is deprived of potential supplies of basic necessities and public services. This distorting effect of inflation may be seen in the public utilities field. Many public utilities are monopolies and their price is subject to control. This control is likely to create a lag in the rise of public utility prices behind other prices. Moreover, such control is used to restrain further increases in the cost of living. Hence, inflation may lead to a diversion of investment from public utilities.

Moreover, inflation brings forth other kinds of public intervention. The increase in imports calls for the protection of reserves, which may involve active encouragement of import--substituting activity and exchange restrictions. Import substitution usually involves the protection of domestic production from foreign competition. This protection may be given by administrative restrictions, tariffs, or excessive currency depreciation. Structuralism, sustains that import substitution will accelerate growth. Monetarism, claims that it will lead to the encouragement of activity which, in the absence of protection, would remain improductive with respect to foreign competition.

Let us now turn to some points of the controversy itself, around the monetarist position. A good example of this are the comments of Dr. de Oliveira Campos (40). Dr. de Oliveira questions the proposition that supply inelasticities, institutional rigidities and the import capacity bottlenecks are the active forces and monetary expansion a residual. He argues that some countries managed to control inflation despite bottlenecks. 'There is no intrinsec reason why bottlenecks and inelasticities should be greater in Brazil and Argentina, than in Mexico and Ecuador'.* Structuralists assume that such inelasticities are inherent to the growth process in Latin America and autonomous causes of inflation. The theory is mainly a development of ECLA's experience** around the Chilean inflation - one of the repressed kind, accompanied by price and exchange rate distortions. These economic distortions are said to discourage investment - in foodstuffs, power and transports, and exports - and create bottlenecks. However, monetarists agree that once these bottlenecks have been created they play an independent causal role. How are then bottlenecks generated according to the author

a) Excess demand arising from the pressures in the foreign sector (wartime export surpluses not offset by unspent export taxes or imports) led to price inflation.
b) Attempts to control inflation were not done through curving excess demand, but by controlling key prices - foodstuffs, transport, energy, interest rates.
c) Private savings and investment were discouraged and, after a lag, were substituted by public investment deficit-financed.
d) Inflation was aggravated, once bottlenecks arose. Thus bottlenecks were originally inflation induced, although later they fed inflation.

In the case of transport and electricity bottlenecks, utility rates were frozen (i.e. Argentina and Brazil) and the results were a reduction in investment or desinvestment and bottlenecks.

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*Although we shall not try to answer here the monetarist position according to structuralism (this forms the core of the next chapter) it is worth mentioning that the author has chosen the wrong examples. Mexico and Ecuador are the most stable countries of the group presumably because their supply bottlenecks have not been reduced not because they were inexistent, Ecuador's import capacity bottleneck was greatly reduced by a booming banana market and thus external and domestic imbalances have been less present. Mexico presents a more complex case. It has a long tradition of public intervention into the price system that has resulted in time with lesser price instability. A look into her balance of trade questions the assumption that there is not an import capacity bottleneck; although tourism and foreign capital have helped. Mexico's agricultural reform and indeed subsidies and price controls have resulted in an expansion of supply and milder inflation; which the opposite is true in Argentina and Brazil. Indeed, generalising as Dr. de Oliveira does, it would appear that Mexico and Ecuador illustrate the structuralist thesis, as we shall see!

**../.. see next page.

In the case of price controls on the food supply, first with respect of domestic consumption, the subsidisation of demand aggravated the price pressure; there was a reduction of relative profitability and thus of investment, in relation to industry and imports; and there was a diversion to improductive use of land. With respect to agricultural production for exports, there was repressed inflation through overvalued exchange rates and the manipulation of prices by government export monopolies which tax the export sector in order to subsidise industry.

Turning now to the import capacity bottleneck, the author considers it a consequence of inflation:

a) There are subsidised rates for the rigid imports that are held to be important cost-of-living items - fuel, wheat, machinery, equipment. But, wasteful consumption is encouraged, investment demand is 'over estimated' by an artificial reduction of the cost to the firm;
b) and, subsidised import rates go together with pegged rates for certain exports which thus become subject to heavy taxation; this results in a disincentive to the expansion and diversification of exports.

Thus the capacity to import bottleneck is an induced bottleneck for the author, arising from deliberate policies that combined internal inflation with external overvaluation, and aimed at financing import substitution through import taxes, rather than by general taxation, or from lack of foresight in building up reserves in boom periods Dr. de Oliveira quotes Brazil, Argentina, as countries who have biased their growth in an anti-export direction; and Mexico and Venezuela, as countries which have done the opposite.*

Selecting Argentina as an example of unorthodox protectionism is not quite relevant. Argentina during 1959-62 abolished to a great extent import controls and export taxes, devalued and kept a more or less free exchange rate market; and abolished the majority of domestic price controls. Nonetheless the import capacity bottleneck, agricultural inelasticities, and infrastructure works were enhanced rather than reduced (see Part III, section b).

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*These again are very debatable examples. Venezuela exports petroleum. Mexico's foreign protection should not be underestimated (See for example, R. Izquierdo (42))

**(from previous page) This is a very unqualified charge. ECLA has five case studies on the external disequilibrium of Latin America and its autonomous bottlenecks - for Argentina, Brazil, Mexico, Peru, and Bolivia (42).

Still, the author arrives at the conclusion that once supplies inelasticities have been created through inflation they exert a derived causal role. Moreover, they make the fight against inflation more difficult in a manner where 'stabilisation programmes may have to create open inflation (prices in the controlled sectors being allowed to rise in order to correct previous bottleneck-creating distortions)'. His programme against inflation would include monetary and fiscal policies, reorientation of public and private investment, as well as foreign aid. Factors which were present in the Argentinian programme and which culminated in the 1962 crisis, and in more inflation.

Unfortunately Dr. de Oliveira does not offer any empirical evidence in his arguments, something surprising considering he starts out by emphasising the need for empirical research.

Structuralists obviously do not agree that bottlenecks have been a result of inflation. They, as we shall see, defend wholeheartedly the opposite. Their thesis which shall be explored in the next chapter is both an exercise an economic history and on economic policy (see also Part I, Chapter 2). With respect to autonomous bottlenecks as a source of inflation let us only repeat here that they arose in the historical context with the fall in the demand for Latin American exports, a reduction in foreign-exchange, and the move towards MST industrialisation as the main source to maintein the level of income and employment (This is the main body of the ECLA-Prebisch theory). The above three factors implied a highly public interventionist policy in industry, agriculture, foreign trade, and public works. Controls were thus widely adopted with the intention of maintaining the rate of growth in the face of an unfavourable external sector and domestid supply rigidities. The policies followed were probably plagued with mistakes, structuralists grant. In fact, they concede that with time the overvalued exchange rates, underpriced public services and agricultural prices, as well as the industrial protection, became burdensome.* But the basic policy was correct in terms of maintaining the level of income and inducing an imposed structural change that would reduce the external vulnerability of an economy. The fact that a structural change 'had to be made' and that bottlenecks existed as such resulted in inflation. Structuralists will say that if such a structural policy had not been adopted as monetarists seem to want it and even granting a reasonable export demand for the region's products - the result would have been stagnation, decline, or at best widely cyclical fluctuations in income; and price stability.** Presumably growth was given

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*See on this point Mr. D. Felix (43).

**One could claim that in 1930 the balance of payments stability was not sacrificed by Latin America herself but by the advanced countries.

priority and stability sacrificed* and the setting of ISI industrialisation in - stituted. But it was one, according to structuralists, which started to function with lack of public works, shortage of foodstuffs for the domestic market and low foreign exchange reserves.

*
The control in cyclical fluctuations and increasing government controls and subsidies in advanced countries should make this clear.

B. On Devaluation

It was stated previously that when exchange rate devaluation is considered as a fundamental cause of inflation, monetarists and structuralists tend to come closer to an agreement. Devaluation as a source of inflation has not always been a feature of monetarism. However, when one speaks of 'contemporary monetarism' - by this we mean professors Harberger and Dorrance, from whom we have been quoting, and, for the matter, the neoKeynesian tradition, including Sir Rod Harrod when he speaks of Latin-American inflation - this is so. Devaluation as such may be considered somewhat neutral as far as the controversy, but not so in its trascendental role as a cause of inflation. The importance of devaluation obviously determines in a good measure price stability and, it is also claimed, its influenc is extended to external equilibrium, the growth of output (the absorption effect) and the distribution of income.

From 1948 to 1965 the relationship between the rate of inflation and the frequency and amount of devaluations is obvious (see table XV). Ecuador, the country with the lowest rate of inflation (2.5%) is also the country with relative exchang rate stability. The countries with the slowest rate of inflation for these period - Mexico, Peru, and Colombia - have the least frequent and massive devaluations, whereas the opposite is true for those with the highest rate of inflation - Brazil, Chile, Argentina, and Uruguay. Bolivia and Paraguay, however, have suffered massive devaluations in a decade or so and afterwards have achieved exchange rate stability and have moved towards domestic stability.

But, if monetarists and structuralists agree that devaluation is behind inflation here the agreement stops. As soon as one goes into exchange rate policy the conflicting opinions appear. An extreme monetarist position would hold that.. 'any attempt to maintain any kind of price for a considerable length of time at a level which does not equate supply and demand is bound to cause distortions in the economy and to produce misallocation of economic resources' (44). R. Sammons, a monetarist, writes: 'The exchange rate is a price and should be permitted - perhaps with some official interference - to serve the function of a price. It is a very special kind of a price; there are very strong arguments for holding it steady as long as possible. But, like any other price, if it is held for a long period, at a level which does not equate demand with supply, it is bound to create problems'. Policy wise there are three alternatives for a Latin-American country undergoing inflationary pressures, in the context of monetarism:

TABLE XVI

Exchange Rate Devaluations and the Rate of Inflation [a]
(currency units per United States dollar, 1948 - 1965[b])

Country	Average rate of price increase	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1967
Argentina	21.4	5	9	14	-	-	-	36	37	-	70	83	-	-	134	-	151	189	350	
Brazil	24.0	18	-	-	-	55	76	-	-	91	138	203	205	318	475	620	1850	2220	2715	
Chile[c]	23.6	66	99	-	128	220	315	630	-	773	-	1053	1.05	-	2.42	3.0	3.26	4.22	6	
Colombia	8.4	2.7	2.8	3.0	3.7	-	-	4.2	6.9	-	8.2	-	-	8.8	11.1	-	12.8	13.3	-	
Peru	7.8	16	-	-	-	20	-	-	-	-	25	28	-	-	-	-	-	-	38	
Uruguay	17.4	2.4	3.1	-	-	-	3.2	3.7	3.8	4.7	10.2	11.2	-	-	-	17.4	24.4	70.0	-	
Mexico	5.3	-	8.6	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	
Bolivia	42.7	42	-	60	-	190	-	-	7760	8565	11935	11885	-	-	-	-	-	-	-	
Ecuador	2.1	17.9	18.3	-	-	-	-	-	18.7	-	-	-	-	21.7	22.1	-	-	-	-	
Paraguay	14.6	3.8	8.1	-	49	58	63	68	113	-	-	122	126	-	-	-	-	-	-	

a) Source: International Financial Statistics, IMF

b) Free Market rates for end of year, when applicable and available (see also Table VI, Part I)

c) Up to 1959 in pesos, later in escudos.

1.- It may hold an exchange rate as long as possible and then, when finally forced to make a devaluation, make it a big one. This, for monetarists, creates a host of problems. For speculators it provides a way for capital flight and a large profit when the adjustment is made and the capital returned. It can make the wage-spiral worse. It tends to leave the currency overvalued, something that may subsidise imports against domestic production.

2.- A second alternative is 'the adjustable peg system', where the exchange rate is changed in small amounts frequently and has official support. Latin-American countries, particularly, have sought a compromise in the way of a fixed rate for commodity trade transactions and a free-market rate for capital transactions. Monetarists say that the system presents the problem that when there are two or several prices, this creates uncertainty about what its real value is. 'To protect exchange reserves from the erosion induced by inflation, writes professor Dorrance, many countries have resorted to exchange restrictions... (they) have been based on multiple exchange rates which provide minimum exchange depreciation for certain basic export products... The favourable rates provided for the import of essential commodities serve to discourage domestic production and encourage activities, (usually the production of nonessential goods) which are given the greatest degree of protection' (45). This monetarist argument, incidentally, is part of the economic distortions discussed in the previous sector.

3.- A free exchange rate, which is what a monetarist would support

a) Devaluations and the price level

This would then be a subject of controversy. Paradoxically, monetarists, who are so eager to institute price stabilisation programmes, through the logic of this arguments arrive at the conclusion that devaluations are inflationary and, at the same time, that they are inescapable. Structuralists, on the other hand, consider devaluation as only one chapter in the 'foreign sector' pressures that result in inflation. On these assumptions the following analysis shall take up the monetarist argument - to be developed later according to structuralist thought. (See Part III, Chapter I, sections a and c).

The specialised literature on the subject in Latin America is as massive as the devaluation of the region as a whole. The main bulk of work has developed around the Chilean school of thought which has held for a long time that devaluation can be expected to have very serious consequences on the level or prices This includes authors like O. Sunkel, A. Pinto, L. Grunwald, F. Herrera, and J. Ahumada. In Argentina, besides Dr. Prebisch, two important authors are A. Ferrer and C. Diaz Alejandro. For Mexico one can mention J. Noyola, M. Flores de la Peña, A. Navarrete, R. Ortiz Mena, and U.L. Urquidi (46). It is out of the scope of this paper, however, to go into all of these materials; one can only hope here to illustrate the main guide lines of the monetarist argument.

A good example of the monetarist position with respect to the effects of a devaluation on the general level of prices can be resumed in professor Harberger's words: (47)

' 1.- They can be very powerful for massive devaluations.
2.- When very powerful, the effects are hard to offset by fiscal and monetary constraints.
3.- The effects are more manageable with small devaluations.'

Professor Harberger for a long time tended to minimise the possibility of devaluation having serious consequences on the price level. He modified his views lately based on the Argentina experience. In Argentina during 1962 the internal price level rose by 35%, while the money supply only increased 15%. It was thus difficult to explain the rise in the price level on the basis of changes in the supply of money. On the other hand, a substantial devaluation (50%) had occurred earlier in that year. Based on this fact he has constructed a theoretical model on how devaluation can affect the price level.

He assumes a country that cannot influence world prices of either its exports (X) or imports (M). This means that as a consequence of devaluation the internal prices of X and M will go up in the same percentage as the exchange rate. Thus if M. account for 10% of national income, a rise in the exchange rate of 50% would produce from this source a rise of 5% in the price level. If X accounted for 8% of GNP, a devaluation of 50% would raise the price level by 4%.

Suppose now, professor Harberger suggests, that M-type goods are produced domestically and that X-type goods are consumed within the country. If M-type goods amount to 10% of national income and X-type goods amount to 6%, the prices of these goods will also be governed by movements in the exchange rate in much the same way as prices of X and M. If now the attempt to measure the effect of a 50% devaluation is made on the price level of internal goods, 26% is directly affected (10% of M, 10% of M-type goods, and 6% of X-type goods consumed at home).

If we only look at the price level of goods produced at home, 24% of the total will be affected directly (8% of X, 6% of X-type goods, and 10% of M-type goods). As the direct consequence of a devaluation of 50%, the general price level of the goods consumed and invested at home would rise by 13%, while the price level of goods produced at home would rise by only 12%.

If there is a substantial substitution of domestic goods for international goods, there might result a substantial substitution induced rise in the price of the former, which may increase the rise in prices attributable to devaluation. Obviously, if the supply of domestic goods is perfectly elastic, no rise in price will occur; the less elastic the supply of goods, the greater will be the effect of devaluation.

There is also the classic possibility that devaluation may have an effect on the level of output of the economy. If there are, at the time of devaluation, significant amounts of unemployed resources within the economy, there will be significant possibilities for expanding output. The international goods sector- assuming that there is foreign demand with respect to X - will have inducement to employ additional resources as a consequence of the rise in the price level.

If the economy is initially fully employed, there can be no significant expansion in output as a result of devaluation. In this case the incentive to expand output would tend to produce an excess demand for factors of production, which would lead to price increases. It is also likely that prices will rise more if wages are rising. But, says the professor, a model that demonstrates the possibility of substantial price increases even when wages are constant is more interesting than a model in which devaluation would have an important effect on prices via wages.

With these assumptions the author constructs an econometric model in which the impact of devaluation, with the help of determinant parameters*, on prices is measured. The results he finds are quite striking: the perdentage rise in the general index associated with a 50% devaluation would be between 30% and 38%.

The next question to ask is what can can policy do to limit the price level effects of devaluation. It is worth recognising that not all rises in internal prices are 'bad'. Except in the cases where the elasticity of supply is zero,

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*Price elasticity of demand for domestic goods; its income elasticity; income elasticity of demand for international goods; marginal propensity to hoard; price elasticity of supply of home goods; price elasticity of supply of international goods; percentage share of international goods production in total output; and international goods consumption and investment as a % of total output.

rises in prices are associated with rises in output. However, if the economy is working near full-employment, the increases in production would be reflected in increased wages and profits and in still greater price rises. If this is so, a possible remedy is to hold down the rise in demand via taxes. Professor Harberger thus incorporates taxes into his model and arrives at the conclusion that in the face of a 50% devaluation taxes would have to be raised from 12 to 27% of national product to maintain constant the level of prices. Alternatively, this means that 10% of national income would have to be raised in order to offset the effects of a 50% devaluation just on the price level of home goods.

'It appears that Latin-American countries, writes the professor, are probably going to have to go on living with 'inflationary' devaluations, for I cannot imagine any country in Latin America which would be able, let alone willing, to accompany a 50% devaluation with a tax increase to 10 or 20% of the national income (48('. Trying alternatives to fiscal policy - monetary constraints - would lead to similar frustrations because the impulse of a major devaluation to the domestic price level is simply too strong to be countered by measures that are less than heroic.

If this discussion has any hopeful conclusion, it is that the effects of small devaluations on the price level are easier to cope with than effects of large devaluations. Policy can cope with a 5% devaluation (implying, say, a 2.5% price rise if not offset, and an extra tax of 1% of national income if offset) much more easily than it can handle a 50% devaluation (implying, say, a 25% price rise not offset and an extra tax of 10% of national income if offset). An argument that suggests the wisdom of this course is that in resource allocation, it is relative prices that count. A policy which attempted to keep the relative price of foreign exchange stable in the face of an internal price inflation would be wiser, from the point of view of resource allocation, than a policy which tended to keep the nominal rates of exchange constant for long periods of time, and which was periodically forced by the cumulative rise of internal prices to take the step of massive devaluation. But will devaluation really have time to re-allocate resources? There does not seem to be much agreement, even between monetarists. Professor Mikesell puts it as follows: In Latin-American countries, which have experienced long inflation, 'the real exchange rate' as measured by the ratio of the nominal exchange rate to the index of internal prices tends to decline rapidly following a devaluation. In other words, the rise in internal prices tends to cancel the initial effect of the devaluation in bringing internal prices into line with external prices. This continues until another adjustment in the nominal rate wholly or partially restores the real exchange rate to its former position. Thus periodic exchange rate adjustments may not serve to ad-

just internal prices and costs to external prices for a period long enough to effect the direction of production and investment and to move the economy toward equilibrium'.

b) Devaluation and growth

The effects of devaluation on the price level are only a part of a much wide field. The modern theory of devaluation is concerned with the effects of devaluation both on relative prices and on real income and expenditure (the 'absorption effect). We shall follow closely in this the work of Mr. A. Diaz Alejandro (49)

Devaluation theory has advanced by dropping some of its early assumptions, for example the constancy of income itself. Such development provides a simple way of dividing the effects of devaluation on the balance of trade into (1) the initial effect, associated with the effects on relative prices; and (2) the reversal effect, associated mainly with real changes in income. With respect to the initial effect, before 1950, writes Mr. Diaz, the effect of devaluation on the balance of trade was reduced to the definition of price elasticities of aggregate supply of exports and aggregate demand for imports. By assuming perfectly elastic supplies and a balanced trade before devaluation, the formula is that of the classical condition that a devaluation will improve the balance of trade if the sum of the elasticities of the demand for M and X has an absolute value of more than one. Modern theory claims that elasticity optimism ensures only a successful first effect (with respect to the balance of trade, not inflation) and not a successful devaluation; besides ignoring the income change induced by a first 'successful' effect. Moreover, the key to a successful devaluation in the long-run (that is, the reallocation of resources between the foreign and domestic sector) is neglected by the use of only two goods, importables and exportables. This has led to an exxaggerated emphasis on the importance of demand elasticities for X and M, in the sense that it neglected to explore the conditions in the domestic economy given rise to such elasticities. However, the classical condition for a future exchange stability may be used as a fairly accurate first approximation to the criteria for a successful first effect of a devaluation. In the understanding that it has also assumed constant output and employment. Modern theory, again, drops these assumptions.

With respect to the reversal (and total) effect of devaluation, one way to handly the impact on the domestic economy, as it was said, is to assume that any increase (or decrease) in total domestic expenditure is offset by fiscal and monetary measures. In such a case there would be no reversal effects, and the total effect would be equal to the initial effect. The point is that there will

be repercussions and these will tend to cancel out the initial effect, whether positive or negative. Total expenditure does change after the first effect as the result itself in the change of the balance of trade and a possible shift in the money-expenditure schedule due to changes in foreign trade, at a start. A successful devaluation will thus raise both domestic prices and income. Such an increase will reduce part of the initial effect, by stimulating expenditure on imports and exports and by tending to increase the domestic price level; but the new thesis is that the reversal factors can never change the direction (favourable or unfavourable) of the initial effect of the devaluation, assuming no offsetting official policies. The models dealing with reversal effects also assume perfectly elastic supplies. Two further assumptions are required here to satisfy a favourable devaluation effect. If only the reversal effect is considered, one has to assume full employment where devaluation works only if domestic absorption is decreased relative to domestic output; and, if total effects are considered, it is necessary to work with positive marginal propensities to save.

It has been seen that a devaluation will raise the domestic prices of M, X, M-type goods, and X-type goods, not only relative to other prices but also in absolute terms. Indeed, this is the fundamental mechanism that starts off the effect of devaluation. Thus professor Harberger's theoretical price index, that includes both M and X and other goods, shows a sharp increase. This was, of course, under the assumption of no changes in foreign trade policy.

Still, the problem is that of resource allocation once devaluation occurs. Diaz's analysis of devaluation emphasises again the short-run impact of devaluation but also includes the income redistribution arising from it. This emphasis, he clarifies, should not be taken as an attempt to diminish the importance of resource allocation for the long-run success of devaluation. Income redistribution as a consequence of devaluation is based on the idea that devaluation by changing relative prices would create a different pattern of output, thereby affecting the returns on the factors of production. Under such an assumption the income redistribution will be characterised not only as a real-income transfer from the sector of the economy producing home goods to the sectors producing importables and exportables, but also as a real income transfer from wage earners to the non-wage earners of the import-substituting and export industries. J. Spraos has studied this with the main interest of a devaluation induced shift in income distribution (a wage lag) that may lead to a new source of instability in the foreign-exchange market (50).

The main point of interest in the modern theory then is to explain the paradox of a devaluation that succeeds in improving the balance of trade, bu which may be accompanied by a fall in the real output of the economy. Mr. H distinguishes two stages of the impact of devaluation on the balance of trad the initial effect, whose size and sign will be mainly determined by the pri elasticities of the demand for importables and exportables; and the reversa effect, which always works against the first effect mainly through the incor mechanism, and which tends to offset the original impact of the devaluation onthe balance of trade. This is of course, part of the traditional theory which suggests that if the first effect is successful in improving the balan of trade will also result in an increase of output by stimulating the produc ion of exportables and importables. On the other hand, a devaluation yieldi a negative initial effect will cause domestic output to decrease. But the a gument is that empirical evidence points out the opposite. In Argentina de- valuations may improve the balance of trade in the short run, but are genera ly accompanied by a fall in the total level of output. Thus decreases in ou may result directly from devaluation.*

The first step towards solving the paradox, is to remember that a deva- luation by raising the level or prices, may cause some redistribution of in- come among different social groups (something similar to what inflation may do). For the author the redistribution effect helps to resolve the problem of an improving balance of trade and a decrease in output (depending on the propensity to consume of high-income groups). Moreover, it is likely that t redistribution effect will have a quicker impact than the initial price effe Even elasticity optimists do not expect price elasticities to be very high in the short run and rely on such devices as short-term capital movements to fill the gap between the time a devaluation takes place and the time when the balance of trade responds favourably to a change in relative prices. The second step is to assume a wage lag. The third is to consider three goods, avoiding the simplification of classical theory: home goods and importables and exportables (foreign goods he calls them).

The author then constructs a system of equations and arrives in the sho run at the conclusion that the balance of trade will improve but that output will fall. The clue is to obtain the short-run impact of devaluation on tot money wages and profits. He says that in the likely case of a fall in outpu after a devaluation, total real wages, as well as the real wage rate, will d

*Assuming neutral monetary and fiscal policies; although not necessarily if monetary constraints are assumed to reduce investment violently and if publ expenditure is reduced.

Absolute money profits will increase in the foreign goods industry, as well as profits per unit of output. But, profits in the production of domestic goods will fall as output decreases. The change in real profits will depend on the expenditure pattern of non-wage earners. The rate of profits, however, would only by coincidence be compatible with either full employment or balance of trade equilibrium. It is clear, however, that the profit share in the national income will necessarily improve after devaluation.

The over-all price level will be raised according to the importance of importables and exportables in the economy, but the elasticity of the price level with respect to changes in the exchange rate will be less than one. It is such a price increase that yields the cut in real wage rates and the increase in the profit rate of the export and import-substitution industries, setting off the income redistribution effect. As income is redistributed in favour of the non-wage sector, the balance of trade will improve in the short run; and the greater the simultaneous drop in domestic output, the more it will improve. The contraction of real wage rates leading to the fall of output will result in a fall of demand for both X and M. An immediate increase in X is possible - if foreign demand is elastic - even though the total output of X is frozen in the short run. Thus the process of price inflation coupled with real income deflation, which has been described, has a number of similarities with the theory of inflation in a closed economy.

If the devaluation takes place under conditions of less than full employment, real wage rates may regain part or all of their losses in the long run when the output of export and import-substitution industries expand. On the other hand, if there is no full employement together with a deficit in the balance of trade, part of the short-run fall will be maintained in the long run, and when there is a reallocation of resources and increases in output are achieved near full employment would appear.

Apart from this, it is well known that a devaluation has a stimulating effect on both X and M competing activities. The existence of intermediate products requires a distinction between an importable (a final good) and an M-competing activity (value added that may represent a small proportion of the value of the final good). Yet, in many semi-industrialised countries, the existing non-manufacturing sector generally takes a dim view of exchange-rate devaluation and fears such a policy as it might fear tight monetary policy. This suggests that at least part of the manufacturing sector falls in a category more nearly to domestic production than of the M-competing industry.

Two situations may arise: one where the conditions under which the effect of devaluation provides encouragement to the X and manufacturing sectors; and, another in which devaluation is harmful to the existing firms in the manufacturing sector. In the first case the manufacturing sector could be called import-competing, while in the latter it may be considered as domestic industry. A devaluation will be painful to the existing manufacturing sector, as it will not be able to reduce imports without reducing output. Under these circumstances, existing firms will tend to oppose further devaluation, unless they can be assured that it will not increase the price of their inputs. The best of all possible worlds for firms producing domestic goods is one of prohibiting duties or restrictions against imports of domestically produced goods, coupled with an over-valued exchange rate, and other types of subsidies for the import of raw materials. Such a situation would slow down the growth of the more advanced branches of domestic manufacturing. In summary, it is claimed that great care should be taken when trying to subsidise the manufacturing sector and subdivide manufacturers into domestic industries and import-competing industries. A given product may include value added in home as well as in import-competing industries, besides having components directly imported. However, these subjects of income redistribution and import-substitution, brought about by devaluation and similar to those caused by inflation, will be taken up again in the survey of structuralism.

Returning to the subject, the conclusion is that by reducing the level of absorption by more than the drop in output, the redistribution effect will play an important part in improving in the short-run the balance of trade. 'In contrast to the traditional theory, which states that absorption and output will move in the same direction as the balance of trade, Mr. Diaz suggests that in the short run the balance of trade improves pari passu with a fall in output. The exercise has then been on how devaluation is not only an important cause of inflation, but a cause in the short-run of a possible drop in output. Moreover, monetarists, although they give a primer priority to price stability, seem to condemn Latin America to inflationary devaluations, whether massive or timid.

C. On Stabilisation Programmes and Some Conclusions

Only a few comments will be made here on stabilisation policies and their objectives in the way of a resumé of the monetarist position. Part III will deal with specifically the most important stabilisation programmes.

The key to understand monetarism lies in the working of the price mechanism and in the ideology of spontaneous growth. Thus the thesis that inflation has perturbed the system - with respect to price expectations, external equilibrium, and the growth of output - requires an interventionist stabilisation programme. In general terms such a programme includes a tight monetary policy; cuts in public expenditure and increased taxes; wage freezes and the encouragement of savings; small but frequent devaluations and a free exchange rate system; the repeal of various types of direct controls and subsidies, with special reference to the external sector; foreign credits, and so on. Monetarists claim that these measures would stop inflation, at least in the medium-run. Moreover, the policies recommended are a result of the monetarist analysis on the causes of inflation.

Does this follow from the experience of this work? It is convenient to summarise the above exercise:

1- The arbitrary expansion of the supply of money and quasi money. It was surprising to find that there is no obvious trend correlation between price changes and these variables, except in some of the most inflationary countries. If monetarists have a case they have it with the non-industrialised economies of Bolivia and Paraguay, and in Brazil and Uruguay. In the rest of the countries, whether very inflationary or less so, the correllations are not significant. Following structuralist thought and granting that the expansion of money is a propagating cause of inflation, two things should be emphasised. The causes why authorities were forced to be expansive have to be investigated. And, despite this fact, not much reliance can be placed on the scope of monetary policy although its 'role' may be obvious. It was pointed out that the theoretical field is controversial; in such a way that any stabilisation programme should be overcautious before relying heavily on the possibility and effectiveness of controlling the supply of money. Experience in Latin America, as well as in advanced countries, requires of studies on the control of money, on its velocity of circulation, on the role of other financial intermediaries, on the responsiveness of investment and consumption to monetary tools. Moreover, monetarism implies an over emphasis on demand inflation in terms of the majority of the inflationary countries.

2.- The arbitrary expansion of public expenditure. Since budget deficits have expanded the supply of money there has been the danger of creating demand inflation. But the empirical evidence makes it impossible to generalise on the relation between budget deficits and price changes. Initially, monetarists have a case with Brazil, and perhaps with Bolivia and Paraguay. There are also weak correlations in Argentina, Colombia and Peru. But, Argentina presents a shrinking public sector. And, the correlations are negative in Mexico and Chile. There is thus insufficient evidence that budget deficits are an autonomous cause of inflation nor are they sufficiently related to prices in a statistical sense. The structuralist argument is taken on from here: it is necessary to establish a relationship between the composition of public expenditure and the behaviour of public revenue with both the growth of output and prices. Other things being equal, over the long run a cut in public investment in an UDC may result in inflation.

3.- Autonomous increases in wages. On the assumption of both demand and cost inflation, has there been wage inflation? It is very likely, of course, that wage increases as such form part of the spiral. Superficially, the more inflationary countries have higher wage increases; but this is as far as the monetarist argument can be taken. Moreover, except for Brazil and Mexico where there is no correlation, there is some evidence that wages have followed prices, and not vice versa. There is also evidence that real wages have lagged badly behind the cost of living in Brazil, Mexico, and Argentina. These and the income distribution argument which form the structuralist thesis on wage inflation will be discussed again. The simplistic conclusion for the time being is that autonomous wage increases and prices do not appear to be correlated in a statistical sense.

4.- The negative effects of inflation on savings and investment. Monetarists claim that inflation will distort the structure of savings, reduce its volume, and missallocate investment. Moreover, it is doubtful whether savings will be forced. In a general sense in Latin America inflation has probably reduced the ratio of money to income; savings in the form of money and quasi money may decline; the value of financial assets denominated in money is eroded and its demand falls; increases in consumption may be induced, and there is a probable regressive distribution of income. What remains to be answered is how inflation alters the structure of savings and what happens to profits and their redistribution or reinvestment. If there are no exchange controls - or if they are weakly enforced - domestic savings will likely be invested in foreign financial

assets. On the other hand, foreign private capital does not seem to move in accordance to price changes; other things equal, its movements appear rather erratic. Inflation appears to have increased inventory investment in Brazil, while growing stability has reduced stocks to a lower percentage in Mexico. But on the rest of the countries no correlation was found. It is likely that luxury housing construction will increase, although an increase in construction as such is not apparent with rising prices. The theoretical idea is that a bias will develop towards short-term investment and durable consumer industries, while investment will be diverted from long-run projects in general.

5.- Induced supply bottlenecks, A crucial element in the controversy is the working of the price system. Monetarists maintain in theory that supply bottlenecks are mostly a consequence and not a cause of inflation - created by the distortions in price expectations during the long inflation and through the intervention of the public sector in the structure of prices, that ranges from international trade to public works, as well as in agriculture, industry, and services. However, no empirical evidence is really offered. The argument shall be taken up from here in terms of the structuralist thesis: the trends in external trade and the underdeveloped nature of Latin America constitute bottlenecks which result in inflation, when growth is attempted.

6.- Devaluation of the exchange rate. The fact that frequent and massive devaluations are closely related to the inflationary spiral is recognised by both sides of the controversy. For monetarists, on the one hand, the overvaluation of the exchange rate, the bias against export trade, and the permissiveness with foreign exchange culminate eventually with inflationary devaluations. For structuralists, on the other, devaluation is only part of the foreign exchange bottleneck which results mainly from the contradictory relationship between unfavourable exports markets and growing import requirements. The monetarist analysis proposed massive devaluations (implicitly), a free exchange rate market, and perhaps frequent but small devaluations as a means of achieving external equilibrium and price stability. Paradoxically, this will have an initial huge inflationary impact and will leave the economy prone to inflation. Furthermore external equilibrium may be achieved at the expense of the rate of growth and of the domestic market and with regressive effects on the distribution of income.

Aside from the above conclusions, the monetarist analysis of these causes of inflation entails the necessity of stabilisation programmes and the emphasis on the objective of general equilibrium. But, such a conclusion, also opens-up the controversial field of the relation between inflation and growth and the problem of the implementation of stabililisation measures, in time and degree.

Structuralists claim that, even though inflation may be undesirable and perhaps avoidable, the cure by means of a stabilisation programme may be worse than the inflation. Monetarists answer that, if their analysis of inflation is correct, an inflationary economy must be one where growth is proceeding less rapidly than it would if the economy were stable.

With respect to the growth inflation problem, monetarists do not hold that stabilisation will result in an immediate increase in output. They say that there might be a temporary decline in the demand for physical investment* and consumption. Some investment may have to be abandoned. Stabilisation may bring a reduction in the growth of uneconomic industries created by inflation and protection, leading to a decline in investment and in the production of capital goods. It might be thought that if inflation is a situation of excess demand, a reduction of demand might do no more than eliminate the excess. But the situation which develops in an inflation is that the supply of goods and services includes types of commodities and services for which demand will exist only as long as inflation continues. The reduction of demand, through stabilisation, and its replacement by expenditure appropriate to stable conditions, involves a corresponding readjustment in supply. Much will depend on what assumptions are made with respect to the propensity to save, the redistribution of income, and re-aallocation of investment brought about by the policies. Assuming that all goes well, monetarists add that the change takes time. The flow of resources created by inflation is said to be not only in excess of, but also partially inappropriate to, the flow of demand in stable conditions. Thus the severity of the consequent adjustment problems and the time required to solve them, will depend, in part at least, on the degree to which the economic system has been distorted. This degree of distortion, monetarists agree, will in turn depen largely on the duration which is being brought to an end. When inflation has bee rampant for decades as in Argentina, Brazil and Chile the problem is more serious and lengthier, than in the less inflationary countries, say Colombia and Peru.

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*Incidentally, Sir Roy Harrod comments: 'the greatest crime to which the free world is prone is to reduce demand below the growth potential of the economy in order to combat wage-price spiraling' (51).

Hence, in some of the forms it takes, monetarism is a rationalisation of the need of the deflation, the priority of equilibria, and 'the return' to the price mechanism.

Nonetheless, monetarists stress that if deflation policies presumably accompanied by open inflation - are effective there should soon be an end to them. 'It should be emphasised - writes Mr. Borrance, for example - that the depressive influences ... are temporary, rather than fundamental. After a relatively short period, they should evaporate... the period of uncertainty must pass, and a new set of expectations should enable investors to make plans for future capital creation, with a consequent rise in their demand for resources... The general flight from real assets to financial assets, which is one of the healthy signs of stabilisation even though it may exert depressing effects on investment, should also be temporary. After a period of adjustment, individual economic units may be expected to desire additions to their stocks of both physical and financial assets. At the same time, the capital flight resulting from inflation should stop (52)'.

With respect to the timing of a stabilisation policy - wether it should be a shocker or a cautious one - by the 1960's most monetarists - professor Lutz, Mr. Borrance, Dr. Simonsen, and Mr. Also-garay, etc. - are in favour of 'firm action'. It is generally argued that drastic changes - in money, public expenditure, wages, domestic controls, and the foreign sector and distribution of income - must be made in the community's expectations if stabilisation is to work. Because if the community sees only timid changes in economic policy, they will be under very few effective pressures to change their views. That is, once inflation has been established, individuals will expect prices to go on rising; and, even if they believe that inflation has been halted, they will not expect stability to ensue immediately. They will also be conscious of the fact that the plan may fail. Therefore, even if money and financial assets should begin to appear more attractive, new purchases or holdings will be slow in the fear that they might again decline in value. By contrast, holding on to financial assets not denominated in monetary terms will still offer protection. This would appear to indicate that the attempts to slow down inflation will take a long time to be effective. That is, the restrictive monetary, fiscal and wages policies may reduce excess demand, but the inflation induced distortions are likely to persist. How firm authorities have to be in order to'alter expectations'is quite an academical problem.

However, in practice, the timing of stabilisation policies, according to Mr. Felix (53), may appear secondary when it is considered that both types, firm and cautious, have been tried rather unsuccessfuly. The fact, of course, is part of the controversy itself. It will be discussed in empirical terms in Part III, Chapter 2.

Nonetheless, let us end this section and open the survey of structuralism with a quotation that reflects the mood of the opposite side of the polemics. 'Considering the recent experience of stabilisation programmes, writes Dr. Sunkel, I cannot understand how anyone could recommend with enthusiasm the bitter medicine of stabilisation. The recent experience shows that stabilisation policies are doomed to failure (54)'.

(1) M.H. Simonsen op. cit. (pag. 108)

(2) M.H. Simonsen, A experiencia inflacionaria no Brasil, Inst. de Pesquisas e Estudios Sociais, Rio de Janeiro, 1964

(3) V. Grunwald, The structuralist school on price stabilisation and economic Development in Latin American issues, Ed. A.O. Hirschman, XX Century Fund, N.Y. (pag. 95).

(4) V. Grunwald op. cit. (pag. 95).

(5) D. Seers, Inflation and growth: the heart of the controversy, op. cit.

(6) H. V. Burton, Inflation in a growing economy, University of Bombay, Bombay (pag 57), and G. S. Dorrance, op. cit (pag. 37).

(7) G. Maynard, Inflation and growth: some lessons to be drawn from Latin America, Oxford Economic Papers, Oxford (pag 185).

(8) T. Davis, Inflation and Stabilisation programmes: The Chilean experience, op. cit (pag. 361).

(9) R.F. Mikesell, op. tic (pag. 2).

(10) R. de Oliveira Campos, Two views on inflation in Latin America in Latin American issues, Ed. by A.O. Hirschaann XX Century Fund, New York (pag. 69)

(11) Idem (pag 70)

(12) R. Prebisch, Economic Development or Monetary Stability: the false dilemma, in the Econ. Bull for L.A. Vol. VI, No. 1, March 1961, UN, New York (pag 1).

(13) R. Prebisch, The economic development of Latin America and its principal problms in the Econ. Bull for L.A. Vol. VII, No. 7, 1962, UN, New York (pag. 14).

(14) D. Felix op. cit. (pag 85).

(15) A. Alsogaray, La inflación en la Argentina y la actual política para controlarla, in Estabilidad Monetaria y Desarrollo Economico, Arte y Cultura, Mexico City, 1968 (pags 55-69).

(16) D. Seers, Inflation and growth: the heart of the controversy, op. cit. (pag. 90).

(17) D. Felix op. cit. (pag. 85).

(18) R. de Oliveira Campos (pag. 71) op. cit.

(19) ECLA, Economic Survey of Latin America, UN, New York, 1966 (pags 57-58 and 288-309)

(20) C.W. Zondag, op. cit. (pags. 55 to 67).

(20) G.J. Eden, Inflation and development in Latin America: a case history of inflation and stabilisation in Bolivia (manuscript to be published in 1968).

(21) J. Marquez, Financial policy as an anti-inflationary instrument op cit. (pag. 414).

(22) N. Kaldor, Committee on the workings of the monetary system, HMS, Londo (pag. 146).

(23) M. H. Simonsen, op. cit. (Quadro 6, pag. 24).

(24) F. Lutz, A comment in inflation and growth in Latin America op. cit. (pag. 483-5).

(25) N. Kaldor, A comment, op. cit. (pag. 500).

(26) A. Kalka, A comment, op. cit. (pag. 502-4).

(27) W. T. Newlyn, Theory of money, Clarendon Press, Oxford, 1962 (pags. 22 to 27).

(28) A. C. Harberger, Some notes on inflation, op. cit. (pag. 322).

(29) Idem (pag. 323-25).

(30) ECLA, Economic Survey of Latin America, op. cit. (pag. 58).

(31) ECLA, The evolution of economic policy in Brazil, Econ, Sur. of L. A., UN, N. Y. 1966 (pags. 288 to 307).

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(33) R. Harrod, A comment in Inflation and growth in Latin America, op. cit. (pags. 418-20).

(34) A. Buira, Development and price stability in Mexico in Weltwirtschaftliches Archiv, Hamburg, 1968 (pags. 59-62).

(35) G. C. Dorrance op. cit. (pags. 42-59).

(36) Idem (pag. 42).

(37) Idem (pag. 45).

(38) F. R. Mikesell, op. cit.(pag 24)

(39) Idem Inflation and private investment in Latin America, University of Oregon.

(40) R. de Oliveira Campos (pags. 73 to 78) op. cit.

(41) ECLA, El desequilibrio externo en el desarrollo económico latinoamerica UN, N. Y., 1957 (E/CN. 12/428)to 32).

(42) R. Izquierdo, Protectionism in Mexico in Public policy and Private enterprise in Mexico, Ed. by R. Vernon, Harvard University Press, 1964.

(43) D. Felix, op. cit (pags. 370-6).

(44) R. Sammons, A comment in Inflation and growth in Latin America, op. cit (pag. 493).

(45) G. C. Dorrance, op. cit. (pag. 58).

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Chapter 3

STRUCTURALISM

A. Preliminary Words

What is structuralism in itself and as something different from monetarism? This is the question that shall be attempted in this chapter and with reference to Latin America's inflationary process. The survey of this school of thought is again carried out, as with the monetarist analysis, on two levels: the theoretical causes of inflation and the policy measures arising from the study. Such a division is arbitrary in so far as here the diagnosis and the cure of inflation appear mixed in a rather complex fashion.

Two questions should be understood from a start to better study the Latin American structuralist-monetarist controversy. The first refers to the theoretical nature of inflation or its causes. And the second refers to the policy problems of achieving monetary stability, equilibrium and growth of output - in per capita terms and with a corresponding redistribution of income. Furthermore, structuralists present their argument in terms of the short-run - the immediate, secondary or propagating causes of inflation, their cyclical nature and the cyclical character of the policy measures aimed at correcting the inflationary process - and in terms of the long-run structural causes of inflation and the structural character of the policy measures required to amend them, the "Structuralist Reform". The present chapter will concentrate on the 'structural causes of inflation'. The latter part will deal again with the propagating and cyclical causes, in terms of policy measures.

With respect to the nature of Latin-America's inflation, it is a mistake to regard structuralism as an exercise on purely cost inflation. One may focus this analysis as based on the historical changes of the structure of demand and supply in Latin America.* Changes appeared in the structure of demand caused by a rapidly growing population, the process of urbanisation (accelerated by the growth of industry), the increase in per capita consumption due to a rising income, changes in tastes, the demonstration effect, and, mainly, by the social pressures of the working class and the civil service. Different income elasticities will create big changes in the demand composition. And these changes put pressure on the structure of production; bottlenecks emerge -or not - depending on the relative elasticities of supply in the various sectors of an economy.

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*See also the Introduction, where inflation is focused from the point of changes produced by the Great Crisis (Chapters 2 and 3).

Inelasticity of supply, writes professor Grunwald, 'means that the supply of goods and services does not expand - and its composition does not adjust - fastly - to meet a rising demand and to a change in the pattern of demand without serious price pressures' (1). Here, of course, the problem of 'the cause' of inflation appears. But, coming back to the 'nature of inflation' (demand pull and/or cost push), this simple statement may show that Latin-American inflation, within the structuralist analysis, may be seen as a demand-pull situation. Because if such changes in the structure of demand bring forth an expansion of money and budget deficits, wage and profit increases, and successive devaluation, an inflationary spiral is set on. This is what monetarists roughly concentrate on. But, one still has to answer the role of supply rigidities; and this is where the structuralist emphasis on cost push starts, but not necessarily in detriment of a demand propagating inflation!

For a typical structuralist inflation in Latin America is caused by propagating factors - the ones undertaken in the previous monetarist survey - and by the structural factors; the basic ones so they claim. If this is so, on a theoretical level, monetarist analysis may be a chapter within structuralism. Moreover, the analysis of supply inelasticities opens up a new field of causes of inflation, where the emphasis is on cost push. What does one mean by this in terms of the controversy?

Structuralists claim that the basic supply inelasticities and causes of inflation are to be found in the foreign sector, in the agricultural sector, in the process of the import-substitution industrialisation, and in infra-structure or public services. These are branded with the name of structural factor, both in terms of production and trade and institutional arrangements. The collapse of export earning after 1929 is signaled out as the fundamental factor.* The purchasing-power-of-exports bottleneck, state strructuralists, imposed an import substitution process brought forth by the decline in the capacity to import. Looking at this from a different angle, the fact may be termed 'an import capacity bottleneck'. Both factors, imports and exports, are reflected in a decline in foreign exchange reserves which call for foreign loans and result in huge amortisation repayments, which, paradoxically, may reduce further foreign exchange. There is then an overall foreign exchange bottleneck. Import substitution, thus induced, creates by itself a host of domestic industrialisation problems. Changes in internal demand are met by supply inelasticities and institutional problems which result in higher costs

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*The decline is measured either in terms of per capita export earnings, purchasing power of exports (deflating current export values by an import price index) or exports as a ratio of GDP. In some countries the decrease has also been in absolute terms. Or a steade increase in exports may have occurred, it is clarified, but still the purchasing power of exports has declined in recent years.

and prices. Three further domestic bottlenecks are stressed by structuralists: a weak industrial sector, both in production and demand terms; inelastic or falling agricultural output; and infrastructure incapacities, mainly in energy and communications. On top of this comes the inequality of income distribution which, according to structuralists, plays a role in this concept of inelasticity. The structural or bottleneck causes - together with demand pull, of course - have initiated the vicious inflationary spiral Latin America has experienced.

The 'basic' or structural factors writes professor Grunwald, are the causal forces of inflation. The propagating factors may also be important once inflation is under way, but gearing policy towards them, according to this view, will not eliminate inflationary pressures because the fundamental maladjustments will persist... In other words, structural factors are closely related to the state of UD of the economy (2). The non-structural factors, as it was said, are referred to as 'propagating factors'. Propagating factors are those that feed back on and aggravate the inflation. They arise from the capacity of the various sectors of the economy to defend their real income. Included in this category are the expansion of money, the wage and salary adjustments, public deficit spending, and recurring devaluations. Structuralists claim that policy only considers these causes of inflation. Such a policy only aims at the reduction for demand and its character is only cyclical; not structural. But, here, one is already on the second policy making level of the controversy.

Policy-wise the controversy is carried out in terms of a 'structuralist Reform' versus orthodox anti-cyclical stabilisation policies (monetary, fiscal, incomes and foreign exchange policies). The disagreement in broad terms appears to be on the question of priorities between a growth or development objective and external and internal equilibrium. Structuralists recognise the need for price stability but subject to the primer objective of growth.* This is why, with serious modifications, the monetarist stabilisation policies might be considered a chapter - abusing the use of the word - within a structuralist reform. If this is true, it is wrong to consider that structuralists - because of their analysis on the causes of inflation - regard inflation as inevitable.

But if there are theoretical differences between monetarists and structuralists with respect to the causes of inflation and practical differences in policy making, there is still a further fundamental disagreement. Monetarists rely, as it has been said, on the working of the price mechanism to achieve

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*Is this priority feasible? This is one of the main questions structuralists would have to answer. The subject is discussed on Part III, Chapter I.

general equilibrium; and what is more, growth of output. Structuralists, on the other hand, implicitly or explicitly, alter the assumptions of a general equilibrium model and place the intervention of the State as the mechanism which shall first produce growth and development and, then, price stability. Has this fact made them irreconcilable? Let us set the nature of the controversy in its simplest form: the causes of inflation, the policy implications and growth versus stability dilemmas, and the phylosophical nature of the conflict.

What this means is abstracting from all but the central factors that form the controversy. Suppose that to understand the structural position all one needs to know is the behaviour of exports (as a cause of inflation) and the makings of a structural change (as a policy) that would solve the problem. And, suppose that to understand the monetarist position all one nees to know is the behaviour of money (as a cause of inflation) and the implementation of monetary policy that would solve the problem of inflation.

It is common knowledge, writes Dr. Prebisch, that economic growth in Latin America is closely dependant on the course of exports. The rate of growth of exports sets an upper limit to the rate of growth, while continous fluctuacions in this first rate contribute to serious internal instability. When there is a cyclical expansion of exports, income expands and this calls for a volume of imports paid for by exports. But when exports fall with a down-swing, imports cannot be maintained and, as a result, neither can the former level of income. Under an orthodox system of monetary stability, the external and internal desequilibrium thus produced leads to a contraction of economic activity, while the balance tends to be restored at a lower income level. But, if the level of income is maintained inflationary forces arise; that is, if they were not already at work. This may lead to an expansion of credit and, while it impedes the downward trend in income, it also impedes the readjustment of imports and, consequently, the restoration of the equilibrium (3). Hence the initial abstraction has to be complemented with the cyclical nature of inflation and the use of anti-cyclical measures.

Desequilibrium continues the author, is one of the factors that make it difficult to apply an anti-cyclical policy that does not compromise monetary stability. Hence the solution lies not in counteracting the effects of the contraction of exports and income, but in 'preventing them by means of effective structural changes'.* One has then to add to the abstraction the use of a structural reform. The purpose of this change is two-fold: to allow the rate of growth to exceed the limit imposed by exports; and, at the same time,

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*What are, of course, effective structural changes?

to keep internal activity operating at the highest level of employment without being affected by export fluctuations. Structural rather than cyclical measures should be applied in order to overcome the external vulnerability, although some anti-cyclical measures are helpful as a complement to the structural solution, the author concludes (4). The situation is one of inflation, caused by a structural factor - and not the supply of money - and which calls for structural remedies — inflationary ones?

Professor Grunwald puts the structuralist case in a straightforward way (3). The structuralist school is not concerned with the problem of stability or growth. The essence of the argument is whether price stability can be attained only through economic growth, and not viceversa. The basic factors of inflation are structural in nature. Financial factors are important only as forces propagating inflation, not originating it. Monetary policy only attacks symptoms but does not cure them. The idea of putting the monetary house in order first before economic development policies (structural changes) are introduced is rejected. Because the structural causes that bring pressure on monetary authorities seem to make the expansion of money inevitable. Even when monetary policy has successfully diminished total demand, the underlying inflationary pressures will persist. (The declining power of exports). In the best of cases stability will be attained at the cost of economic growth. So far, the theoretical evidence coincides with our assumption.

Mr. Felix's summary conclusions are similar: 'First, the structuralists do not regard inflation as a viable long-run solution to Latin America's growth problems. Rather it is viewed as a manifestation of a deformed economy. Second, they concede that an IMF stabilisation programme may reduce some of the deformities in the economy - the secondary malfunctions. But what the programmes do not remedy are more basic imbalances which retard economic growth. They thus introduce a degree of greater efficiency at the cost of reduced employment and stagnating output, a socially untenable solution (5). In another article the same author quotes empirical evidence on the subject: 'The failure of stabilisation programmes strengthens the view that the major rigidities (supply inelasticities) are not as described by monetarists, and were causes rather than results of inflation ... the unfavourable trends in world primary product markets' (6).

The structural causes of inflation and the monetary policy versus structural change approach intermingle further in Dr. Prebisch's exposition. He writes that 'the general mistake persists of considering inflation a purely monetary phenomenon to be combated as such. Inflation cannot be explained as something divorced from the economic and social maladjustment of these countries. Nor can serious thought be given to an autonomous anti-inflationary policy, as if only monetary considerations were involved. It must be an integral part of

development policy. Economic development calls for a constant change in the form of production, in the economic and social structure, and in the patterns of income distribution. Failure to make these changes - or to adopt them only partially - leads to the maladjustments which release the powerful forces of Latin-America inflation. This should not be taken to mean that inflation is inevitable. To avoid inflation, however, there must be a far-sighted policy of economic and social development, in other words an essentially new approach. This is not a merely technical problem: it is essentially a political one (7).

The main object of structuralism is, of course, to demonstrate that there is a solution to the problem of monetary stabilisation that is a different one to that recommended by the monetarist school. Dr. Prebisch rightly indicates that the orthodox position ignores the phenomena of economic development* (8). Whether a Latin American country is enjoying a boom or suffering a slump in its exports, whether it is growing at a rapid rate or not developing at all, the formula is the same: iflation must be combated by a credit restriction, and other monetary instruments. But does this mean that orthodox monetary policy is indifferent to a country's economic development? Does it set up monetary stability as primary objective, for the sake of which such development must be curbed or smothered? This would be an injust assumption. The problem seems to be the implicit negation of the need for a development policy - changes in the patterns of production and income distribution. The mistake is a consequence of the belief that growth is a spontaneous phenomenon in Latin America: once monetary stability is assured and the economy free of state intervention, the free interaction of its forces will bring about maximum efficiency in the utilisation of the factors of production. The orthodox application of anti-inflationary policy generally implies economic contraction, it is the indispensable sacrifice whereby to earn the remission of our economic sins and the grace of foreign private capital. All this is much to be regreted, continues the author: monetary policy should not be expected to yield results which it cannot produce alone. It is impossible to combat inflation or prevent it by purely monetary measures, they must be a part of an economic development policy which insures structural equilibrium. This means, mainly, a transformation of the structure of production and the composition of exports and imports. These changes cannot result from the spontaneous interaction of economic forces. The main objective of monetary policy is to stabilise the external equilibrium of the economy; not, however, its structural equilibrium. Structural equilibrium is not a matter for monetary policy.

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* One has only to remember that professor A. Harberger says: 'I have chosen to concentrate my remarks on the problem of inflation, not because I believe it is more important than the problem of growth, but simply because I believe that the technical apparatus with which economists work enables us to say substantially more about inflation than about growth. (9).

What is first needed is a tax policy planned to provide incentives to investment and measures to promote capital formation; something which will give monetary authorities a base from which to operate against the inflationary expansion of credit. Nevertheless, this concerns only one aspect of inflation. Not all inflation originates in credit: the inflation of costs must be also considered:

Unfortunately, the structuralist position and the controversy itself are not as simple as that of the abstraction assumed. There are more structural causes of inflation which interact in a complicated manner. Nor all structuralists agree with these top priorities and policy conclusions. Within the broad field so far described, there are different types of structuralists. On one extreme there are those who consider that the structural changes are of such a magnitude, that they would surely be incompatible with initial price stability. These may be identified with those that demand revolutionary surgery. On the other hand, some consider that Latin America may have to learn to live with controlled inflation -- and make the best of it. These may be closely associated with some studies of the Brazilian case. However, the classic structuralist analysis is still that which worries about the structural nature of the inflationary process, the priorities between internal and external equilibrium and growth, and the resulting policy measures. This is the one that has been developed around the Economic Comission of Latin America, where Dr. Prebisch is the main figure, and the Chilean School.*

Before closing this general introduction into the subject of structuralism, and going into the empirical study of the causes of inflation, however, it should be interesting to stress that our main main concern here is to state how the causes interact. It would thus be convenient to describe the mechanics of the structuralist inflationary model (a). Something should also be said about the Latin American countries where it may be applicable (b), and, lastly, some concluding remarks(c).

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*In this respect, Mr. Felix writes: "A useful division is between structuralists who would work within the social establishment to reform it and those to whom a socialist revolution is essential. Major revolutions are rarely compatible with price level stability until the institution gourndwork has been drastically relaid (10). With the first group - in theory - reconciliation with the monetarists is more possible. Tentatively, this would imply a secondary role for monetary policy; a fundamental tax reform; an incomes policy that would create a growth understanding between workers and entrepreneurs; an overall agrarian reorganisation; a new export policy; increased state intervention in the form of public investment and infrastructure work; a yet uninteligible industrial reorganisation, and other far-fetched measures of which something shall be said later.

a) The mechanics of the structuralist inflationary model.

The setting for the structuralist inflationary model is that of a Latin-American country undergoing industrialisation. While it is true that the mechanics of inflation may start in many ways, it will show for structuralists certain predictable symptoms: a strained foreign balance and particular supply bottlenecks.

Suppose that a rise in exports slows down or stops. And suppose that such a Latin-American country has a growth priority.* If growth is to continue, this must mean an acceleration of the rate of import substitution, i.e. industrialisation.** But industrialisation will also produce structural inflation. With the rapid expansion of some industries, imports of capital goods and raw materials will not fall. Imports of consumer goods will tend to be reduced, although foodstuffs not necessarily. The expansion of some industries will have a direct impact on the price level because, at least initially, domestic produced goods are surely more expensive. Hence there will be protective measures; the market conditions may be monopolistic; the output small because of the rise of the domestic market***, and the technology relatively wasted. In practice, relative industrial prices did not fall much after new industries had gained a foothold. Not only were domestic markets small, but once imports had been replaced, further growth depended mainly on the growth of income and its distri bution. But though income rose, agricultural stagnation (the second bottleneck) and the highly inequal distribution of urban income retarded the formation of mass markets. Signle-firm or oligopolistic industries and undersized plants became a permanent part of the Latin-American industrial structure. The monopolistic market structures, however, enebled increases in industrial costs to be passed on in higher prices.

What is of crucial importance then is that the demand for imported inputs is increasing and that industrial costs are higher. To attract workers higher wages will be offered and this will raise costs and eventually the already rising price level. Also, industrial expansion will require more public services (electricity and transport, the third bottleneck) and a higher demand

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*Mr. Felix interpreting Latin-American inflation in the structuralist historical and political approach, says: "A high rate of economic growth became (late 1930's) a sine qua non for reconciling the competing income demands of the various social classes". (11)

**Industrialisation, writes the above author, was enthusiastically selected as the chief means of achieving a viable rate of growth, for it promised better employment for the urban workers and white collar and professional classes and reduced social tensions and relief from threats of agrarian reform (12).

***It is said that Brazil and Mexico, for example, are exceptions. It is true tha they are potential exceptions, a structuralist would argue, in so far as incon

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for food will appear. Public investment is retarded because of low tax revenues, tax concessions to encourage industrial investment and competing 'social demands' on the budget. But budget deficits appear as a consequence of the general expansion, and money creation is also taking place.

Thus import substitution changes the consumption functions throughout the economy. This requires a flexible domestic market in a setting where the markets for labour and capital are imperfect. This will mean rising prices. Moreover, to the extent that the transformation is inadequate, the pressure of demand for imports will not be relieved. Then the exchange rate will be devalued which will also raise costs further. Once this has happened — decline in exports, import-substitution industrialisation, a high import demand, agricultural and infrastructure bottlenecks, and devaluation — the setting is perfect for spiralling inflation.

Once price increases affect the standard of living, there will be attempts to raise wages and other forms of income. The propagating inflationary factors gain momentum. With time savings are discouraged and capital is moved away from long term investment. So that inflationary bottlenecks further increase.

Excess demand will have appeared because of these supply lags. (Agriculture, steel, fuels, electricity, etc.). For example, in agriculture, where either prices rise or the imports of food increase. These will stimulate the pressures on wage increases, together with the effects of urbanisation on consumption. One has to remember that two important problems coincide with Latin-America's inflation. The sharp drop in death rates has given Latin America in the past two decades the highest population growth rate in the world, and the increased inefficiency of latifundia and minifundia.* Similarly, a budget deficit may grow because of an expansion in expenditure and lags of revenue. Similarly, demand may rise because of the expansion of monetary policy causing private investment to outrun private savings. Rising prices discourage exports while imports are stimulated, thus inducing a devaluation. Wage increases may be greater than productivity increases. This at once results in rising prices specially if the industry is monopolistical.

In any of these ways a structural price inflation can grow, and develop cumulative features.

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*(from previous page) .. redistribution enlarges the market.

*'Even if it were possible to transform agriculture rapidly, writes Mr. Felix, it is unlikely that agriculture would have maintained its role as major employer, many of the innovations would have been labour saving. Nevertheless,' a rapid rate of transformation would have at least meant cheap food for the cities and a growing rural market for urban products. Instead, the worst ensued. A rapid rate of agricultural modernisation proved too much for the estate owners. Output expansion was slow, food prices pressed upward and agri-

In summary, what are the basic features of the model? There is a chronic shortage of foreign exchange. There is also a chronic upward pressure on import and food prices. These respectively, raise domestic costs and set off wage demands, culminating in a devaluation and in a general rise of the cost-price level, with oligopoly pricing in industry and trade facilitating the upward price movment. On this setting propagating inflationary pressures intermingle. Because the government operating budget tends to be inflexible in real terms, and because revenue comes largely from indirect taxes and from foreign trade sources, the rise in prices generates fiscal deficits which are met by central bank borrowing. Similarly, the higher cost-price level induces the banking system to provide additional private credit. While tight money would thus prevent the cost-price rise, with import and agricultural prices rising autonomously, a fall in industrial prices and wages would be required. Since both are sticky downward a substantial drop in output and employment would be needed to force them down. Moreover, the relative rigidities of the government budget mean that the alternative to central bank credit would be primarily a reduction in public investment. Since political pressures, already highly at work increase in Latin American countries when per capita output stagnates or falls and urban unemployment rises, efforts to maintain tight money fails both as policy medicine and in the political setting. Still, what this means is that price stability - somewhat aside from the problem of growth - could succeed, given the present conditions in Latin America, only if external circumstances were favourable, as during a sustained export boom, and if the supply of foodstuffs proved elastic. Similarly, tight money might be maintained by a strong dictatorship which is able to reduce the expression of social discontent.

(b) To what countries does it apply?

The above sections have been generalising freely about Latin America as if it were a whole case for the structuralist analysis. It is convenient to try to specify to which Latin-American economies the model applies. Something fundamental has already been said about the subject in the Introduction

It was said that in principle the structuralist model would apply to all of Latin America inasmuch as these countries undergo industrialisation and a structural change in demand. In practice this is not so: not all Latin America had undergone sustained industrialisation nor have all countries relatively speaking, suffered chronic inflation in the post-war period.

We thus abstracted from the 'stable' countries: Venezuela, the Central American Republics, the Caribbean countries and the ex-colonies - or colonies

still - of Great Britain, France, the Netherlands and the United States.* The main reasons why these nations did not suffer spiralling inflation have been superficially stated (see Part I Chapter 3). Professor Seers has a good introduction into the qualifications of the structuralist model (14). This study differs somewhat from the Professor's approach.

One is thus left with the countries that have suffered chronic inflation in a good part of the post-war period. They are Argentina, Brazil, Chile, Colombia, Peru, and Uruguay. Bolivia and Paraguay, somewhat together; and Mexico and Ecuador, one which has moved towards stability and the other which has tended to move away from it. But this does not mean that the structuralist model applies to the lot. Important qualifications have to be made in all cases, qualifications that may greatly invalidate the applicability of the model (Structuralists, of course, claim that their analysis is generally applicable). This is then one of the main interests of this survey.**

Ecuador is the border case between relative price stability and inflation, and used as a relevant point of reference in this respect. One can hardly make a case for Equatorian industrialisation. Yet, the export sector is fundamental for the equilibrium of its economy; specifically the banana market through which Ecuador has been able to maintain its rate of growth. Stating the case in these terms, however, would place Ecuador closer to the countries from which the study abstracts. Nevertheless, a structuralist case is made out of it if one stresses the relation between the export sector and price stability, in a setting of semi-unorthodox policies that have included devaluation. It is worth remembering that the countries abstracted from have maintained exchange rate stability.

Bolivia and Paraguay clearly present a peculiar case and a controversial one, at least in terms of the structuralist model. Again one cannot speak of industrialisation or of important changes in the structure of demand, but of the opposite. Social pressures have not had expression in Paraguay; and in

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*The assumptions, however, should not be taken to extremes. In theory it is conceivable that one of these countries industrialises without necessarily falling into spiralling inflation. Suppose, for example, that Central America as a whole, undergoes consistent import substitution and that its young common market, by the grace of international conditions, succeeds in eliminating the inflationary tendencies of the process. Or take Cuba too. She was stable and stagnant and the Revolution brought such economic and institution changes that the structuralist model is rendered obsolete.

**It should be remembered in simple terms that evidence points out that the monetarist model seems to be more present in Brazil and Uruguay and Bolivia and Paraguay, abstracting from the structuralist argument.

Bolivia*, if they have, they may have been abortive. But both have suffered the worst cases of spiralling inflation during 1950's and there are clear signs that unorthodox monetary and fiscal policies played a leading role (the propagating factors). If this were statistically based, a better case could be made for the monetarist argument. Still, there remains the structuralist point of a possible determinant relationship between the behaviour of exports and rate of inflation. Would both models apply then? One is clearly back in the controversy itself.

The structuralist model fits better into the experience of Argentina, Brazil, Colombia, Peru and Uruguay, and less so with Chile. Important qualifications have to be made, however, in all of these cases. This historical relevance of the export sector can be stressed in all of them, although Peru has had a more satisfactory experience. Import-substitution industrialisation, financed with the export proceeds of a few primary products is also a fact together with monopolistical practices and a small market. Except for Peru, where it is also more difficult to speak of a forced import-substitution effort. Nonetheless it may be possible to identify a serious overall foreign exchange bottleneck in the lot. It is also not difficult to observe infrastructure bottlenecks, though it remains to be seen whether they are inflation induced or autonomous. With respect to the agricultural sector - the inelasticity of supply and the handicap of institutional arrangements - the case may be seen through the persistent imports or the decline in exports or the rising price level of such commodities. Structuralists would have to prove that this is a fact. It was once fashionable to argue, evenby structuralists, that the assumption was generally true, except for Argentina. 'In regard to agriculture, writes professor Grunwald, it is absurd to talk about a bottleneck in Argentina, exports of food products can be varied and may be decreased to augment domestic supply' (15). A later empirical study of Mr. Diaz Alejandro, a non-structuralist, proves that indeed the Argentinian agricultural supply has been inelastic (16). With respect to structural changes in demand, it could be said that there has only been a small acceleration of population growth in Argentina and Uruguay in the past two decades; although urbanisation has proceeded fastly. On the other hand, it might be claimed that the relative growth of the urban sector and hence the pressure of social problems, has not been so great in Peru and Colombia as in the rest. The problem of assessing the social pressures on the public budget, say, are

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*Bolivia's near hyper-inflation of 1952-53, as it was said with reference to bibliography, should be studied in the context of the 1952 Revolution, and the 1964 coup d'état.

outside the competence of this study. One can, however, gather an idea of it through the behaviour of wages and salaries and trade-unionism. It is said that trade union pressure is weak in Latin America. But, again, this is a relative subject. Its power was obvious in Peron's Argentina, but seems to have declined in the last ten years. Alternatively, it was claimed that Chile's trade unions are ineffective; something that may have changed in the last years. But here one is already dealing with propagating factors of inflation. And it is true that all of these countries have used non-orthodox monetary and fiscal policies, wage increases, devaluations and semi-fixed exchange rates and so on. In conclusion, the relevance of the experience of these countries and of the importance of the controversy in itself is rather obvious.

The case of Mexico, however, may be taken to be peculiar. Because it may be used to sustain both the structuralist and the monetarist sides of the argument, as well as the negation of both. Mexico has experience considerable inflation in the post-war period, except that in the last five years almost completa stability has been attained. Structuralists would claim that this has happened as a consequence of structural changes, accompanied by an inflationary period. They would speak of a social revolution an agrarian reform, an expanding supply of foodstuffs, a reduction of the foreign exchange bottleneck, the placing of manufacturers in the international market, persistent public investment in infrastructure and industry and so forth. Nevertheless, monetarists could argue that price stability is within reach because prudent monetary and fiscal policies have been followed* and, in the case of Mexico, a good argument can be made of it. But there is, to complicate matters even more, the possibility of a third explanation. Other structuralists could argue that Mexico's price stability is only apparent. It would be difficult to argue that social pressures have not changed the structure of demand or that there has not been an agrarian reform. But the elasticity of agricultural supply could perhaps be used as an argument. Here, of course, the crucial factor is income redistribution. Furthermore, it could be claimed that there is a foreign exchange bottleneck hidden by a clever financial policy. Tourism helps a lot, but does not stop the country from increasing its degree of foreign indebtedness and a tight schedule of repayments (it remains to be proven that this is so). Still, indebtedness, may arise, among other things, and in structuralist terms, because Mexico's primary exports have suffered the same tendencies as those of the rest of Latin America; because the exports of manufactures

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*This by itself could open a new approach different from both structuralist and monetarist analysis, because it would seem that price stability, structural changes and growth could be attained simultaneously. Balanced growth models

is yet insignificant, and because import substitution industrialisation is similar to that of the Southern countries. With respect to the role of public investment, there is no doubt that Mexico has a highly interventionist state. What is less clear is whether intervention, starting from the 1920's has increased or decreased, most likely it has undergone ups and downs.

The above generalisations, the majority of which lie outside the scope of this work, have been made only to stress the case for including the ten countries in the analysis and to show the ambitious implications of the structuralist model.

C) Some additional remarks

The trouble with the word structure is that it may contain ideological implications which are not the same in all cases. That is, the work implies different shades of economic philosophy. It would be too simple to identify structuralism with the intervention of the state in the economic mechanism and as a challenge to the workings of the classical price mechanism. This, however, would not be entirely true because many of the main exponents of the school do not adopt exclusively either one of the postures. One can rhetorically claim that different structuralists move along a scale that goes from less to more public inveventionin economic life; where more or less 'use' is made of the free price mechanism; or where the system itself may be totally abandoned in the search of a 'planned' economic system. The field, however, is not one of our competence.

One of the origins of the word is in Marxian economics. Where the term structure is used to define the main economic determinants of a given economic system - the ownership of the means of production and the means of production themselves - and the term suprastructure, to define the non-economic institutions of a given economic system. The more leftist Latin American structuralists use the word in these terms plus to refer to all the factors that act as impediments to growth. From their analysis they draw the conclusion of a social revolution - a structural change. They are thus not interested on short term price stability or growth, but in an absoluto socio-economical change that within the process, does not seek immediatley either of the objectives. Once the change had occurred, they would presumably take up the problem of growth and stability.

More conservative structuralists are not concerned with social revolution and their use of the term derives from different sources. With them one may speak of the structure of demand and of the structure of production in an economic system that, up to a point, abstracts from social and political determinants. With respect to the structure of production, we refer, for example, to Professor Leontief with his emphasis on 'structural' relations between industries and changes in industrial output and the composition of factors of production. With respect to the structure of demand, one may refer to T. Veblen and professors Dussenbery and Nurkse. Here, of course, besides economic behaviour of individuals and social groups, institutional determinants - like population growth and the distribution of income - are accounted for.

But, within this use of the word structure, it is possible to circumscribe a bit further its definitiion. It is used to refer to the composition of GNP, according to the economic sectors that form it. Hence the structure of GNP is formed by the agricultural sector, the industrial sector, the external sector, and the services and trade sector. Structural changes are then those that occur within these sectors and within one sector in respect to the others; but, nonetheless, within the general field of the structures of demand and production and social and political institutions. Structural causes of inflation and structural obstacles to growth would be those derived from the behaviour of the economical sectors and the market. A structuralist reform would be one that changes the existing behaviour or composition of the sectors and of the market.

There is a further fashionable use of the term in this respect. It is used to differentiate the concept of economic development as something different from the growth of output. ECLA, among others, says that economic development besides including a non-cyclical growth of output in per capita terms includes a structural change. By a structural change they mostly emphasise a change in income distribution patterns, but it is not difficult to extend the meaning to changes in the economic sectors and in the market.

For the purpose of this work, - not wanting to de-emphasise the ideological and 'input-output' validity of the term - structure is simple used to refer to the composition of aggregate demand and supply. A structural change is not only reflected in the growth of both variables and in the size of the market; but, what is more important, in their composition. On the demand side, the changes in the distribution of income and in the composition of consumption and savings are structural. On the side of supply, the term applies to changes in the composition of factor of production and to the

changes in the weight of the different sectors of the economy. Over-all, a structural change implies a sustained (non-cyclical) rate of per capita out put but with progressive income distribution corollaries. Lastly, the term may be extended to those institutional changes that not only alter the behaviour of economic variables but result in a certain economic policy. A structural economic policy, as the word indicates, is an induced and 'new' policy that substitutes the economic status quo, whether the full price system or another 'brand' of public intervention.

Having made this introduction into the subject of structuralism, the next step is to go into the subject in the above terms. The chapter then will deal with the cumulative cause of inflation. As it was seen in the mechanics of the model all factors interact in a highly complex fashion. However, for analytical purposes, they have been divided into five main groups: the agricultural bottleneck; the foreign exchange argument; import substitution industrialisation; infrastructure bottlenecks and public investment and finance; and, the distribution of income. On the last part of this work we shall insist on the propagating causes of inflation, according to the policy measures implicit in structuralism.

B. The Cumulative Causes of Inflation

a) The Agricultural Bottleneck

It is convenient to start the study of the cumulative and structural causes of inflation, with the factor of an agricultural inelasticity of supply. The reason for beginning with this factor is simply one of order: inflation in a closed economy. However, it is worth noting that different structuralists emphasise the role of agriculture in the inflationary process with different degrees of relative causability with respect to other structural origins of inflation. This exercise shall first follow the authors who give agricultural inelasticity a leading role. Later, an appraisal of the argument will be made in such a way as to integrate its relative role in the structuralist model.

The argument of the role of agriculture in the Latin-American inflationary process may really be an extension of the theories of balanced growth versus unbalanced growth in UDC (for a bibliography on the subject see the footnotes (17). Balanced growth theories were defended in their time by professors Dusenberry and Nurkse; unbalauced growth became popular through professors Hirschman and Streeten, a good confrontation of the arguments is that of Mr. Lipton; and, a historical and empirical analysis of Japan, which became of much consequence, is that of Messrs. Okhawa and Rosowsky. Although the subject lies outside the scope of this paper, it is necessary to say a few inttroductory remarks with respect to inflation. The ideal situation would be one where agriculture and industrialisation in the closed economy advanced hand in hand; or, where in the historical sense, industrialisation has been preceeded by an agricultural revolution. In the real world of UDC, however, there are strong arguments that point out that the industrial sector may push ahead of agriculture; or that the agricultural sector may then shoot ahead of industry, and so on.

What is interesting here is not only the elasticity of output, but the different elasticities of the commodities that compose such output. The general argument is that the elasticity of the agricultural supply places a constraint on overall economic growth. The argument proposes two alternatives. First, there should exist prior agricultural elasticity; which usually requires an increase labour productivity on the land, so that labour may be shifted into industry. Second, if there is 'excess labour'* in agriculture, both agriculture and industry may proceed together. But, whatever the case,

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*This is, of course, a controversial subject.

if it so happens that the demand for foodstuffs cannot be satisfied and the market for manufactured goods is limited, then price stability is endangered. The argument can present the following developments. 'Excessive' industrialisation in the early stages of growth can lead to inflation depending on what happens with agriculture and aggregate demand. With industrialisation the high income elasticity of food in UDC and the larger the proportionate increase in the supply of manufactures, the more likely prices of food will rise relatively to others. Several determinants have to be accounted for. In Latin America there should be a greater sensitivity of agricultural prices to demand. A lot depends on what happens in the labour market and in the income distribution. If wages are sensitive they will rise with little lag. Costs of production in industry may thus rise. In any case, it may happen that if the relationship between real income growth, food supply elasticity, income elasticity, and industrial response is compatible and favourable then there is a chance for price stability. Presumably this is what has not happened in our Latin-American economies.

'The factor that will determine whether inflation gets out of hand, writes professor Maynard, is the price of food. 'If food prices start to rise... then money wages in industry can hardly be kept stable. Once they begin to rise then inflation of industrial prices takes more the form of cost inflation than a demand inflation... the developing of manufacturing must not take too great a precedence over agriculture, for if the latter lags it will be difficult to prevent food prices from rising. The income elasticity of demand is the crucial factor which determines the appropriate growth rates of agriculture and industry. There is little doubt that food prices have played a key role in the severe inflations of Latin America' (18). This may be taken as an example of structural inflation, with emphasis on the agricultural bottleneck and 'excessive' industrialisation.

Suppose then that inflation in Latin America has been caused by an inelasticity of the supply of food and raw materials; among other structural factors. Suppose further that agriculture has not been able to respond to demand because of two things. The structure of demand has changed 'explosively' following the highest population growth in the world and the process of sustained urbanisation throughout the post-war period (See Table IV, Part I). On the supply side institutional and economical factors create such an inelasticity. The land tenure system, with latifundia and minifundia, has been inefficient and the structure of services - such as agricultural extension work, irrigation, transport and communications, mechanisation and so on - has been rigid. Moreover, the regressive distribution of income will affect 'negatively' the structures of demand and supply, and their growth (Turn to section e).

Population growth and urbanisation will then have a strong effect on agriculture and the production of the sector will have to grow very fast even though the income elasticity for food may be low. Assume, correctly, that the population grows at 3% and that the proportion of urban to rural population rises from 50% to 51%. There are 5% more to be fed in the cities. Even if the income elasticity of food is only 0.6 and per capita income increases only by 2%, it means that agricultural output will have to grow by about 6.2%. This, for Latin America, let alone any other region, is quite an unfulfilled order. (See Table II).

The proposition that Latin America's supply of food and raw materials has not been elastic enough and has created inflation, raises a host of interconnections with the other structural and propagating causes of inflation. A clue factor is industrial productivity. If this would increase presumably prices would fall. It is more likely, however, that wages will increase, among other things because of higher prices for food. Wages have then, an induced role. Dr. Prebisch stresses other spiraling possibilities. There are also important factors which contribute to inflation. The slower rate of increase in agricultural productivity, the antiquated land tenure system, and the cost of import substitution' (19). With respect to agriculture, MST may raise costs because of higher prices for machinery, fertililisers, and other inputs. The point is that if agricultural productivity does not rise - or rises less than - higher wages will result and will be reflected on costs and prices. 'The existence of an anti-economic structure of land-ownership writes Dr. Sunkel, constitutes a strong obstacle to the introduction of modern technology and the full use of agricultural resources (20)'. This reduces productivity, agricultural production and a vital link in the process of growth. Moreover, not only through higher import substitution prices is agricultural inflation connected with the external sector. In the case of the export of foods, the inelasticity may lead to a fall in exports, therefore putting pressure on the balance of payments. 'In Argentina and Uruguay there has also been a lagging agricultural supply, writes ECLA, but since foodstuffs are the major exports the shortage for domestic consumption is not so obvious' (21).* In other countries, the increased demand for food may be supplemented through imports (this has been the situation, in different periods, in Chile, Colombia and Peru.** But this reduces the possibility of necessary capital goods and raw material imports. In such a situation, again, the gap will be filled by price increases, since the demand for such goods is inelastic. There is an additional factor that the effort to stimulate exports by granting more favour-

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*It will be seen however, that in Argentina and Uruguay not only the supply of primary exports was inelastic but the domestic supply of food too!

**Incidentally, ECLA claims that Brazil and Mexico(where there has been agrarian reform) have had a more elastic agricultural production. This means nothing here since one has the highest rate of inflation and the other one of the lowest for the period 1946-65.

able prices raises domestic food prices, further contributing to inflation. Lastly, the argument can be interpreted in terms of income distribution. 'This (rising food prices) would mean a fall in the real income of the urban wage earners, says Sunkel, since food takes a large part of their budgets, and would also cause a fall in theri demand for manufactures, since it would mean a regressive shift in nincome distribution. Whether the urban workers obtain wage increases or not, an unbalancing factor is introduced and it will either start an inflationary process, lead to balance of payments difficulties, or, by limiting the size of the market for manufactures, con tribute to the stagnation of industry and the growth process' (22).

From here the next step is to insist on a theoretical model of inflation in a closed Latin-American economy (i) (The model will be based on Professors Maynard's analysis (23); and the second, to produce some empirical evidence).

(i) An inflationary model

The author's idea is that 'excessive' emphasis on industrialisation to the neglect of agriculture, tends to produce pressure on the level of prices, quite apart from excess demand; so that is the latter is removed prices may none the less continue to rise. It is true that one should not expect balanced growth. In this respect the crucial factor is the income elasticity for the demand for food, which does not remain constant through growth; it declines with growth. But, given the level of real income, there will exist an 'appropriate' relationship between the growth of agriculture and the rate of growth of industry which will leave the internal terms of trade unchanged*. If however, the growth of industry is 'higher' than is 'appropriate' for agriculture, then the internal terms of trade will favour the latter, and there are reasons to expect a rise in prices.

1.- Suppose then that there are only two sectors in a Latin-American country: agriculture and industry. Second, that capital goods are not bought by consumers and that their demand does not depend on current real income. Thirds, food and consumer goods do depend on real income. If total output is compesed of 70% of food, 20% of manufactured goods, and 10% of capital goods, while agricultural output remains constant, what happens to prices?

2.- If the rise in the output of manufactures takes the form of only capital goods, its output will increase by say 60%. But, then real income also increases, so that there will be excess demand for food and manufactures. The prices of which will tend to rise. If the income elasticity of demand for food is less than unity, manufacture prices will tend to rise relatively to food prices.

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*Allowing the rate of agricultural growth to determine the over-all rate of growth, in other words.

3.- Alternatively, if the increase in industry is divided between capital goods and manufactures - and if the marginal savings ratio is 0.1 - then the income elasticity of demand for food would have to be below a half to cause the terms of trade to move in favour of industry. The higher the income elasticity of the demand for food and the larger the proportionate increase in the supply of manufactures, the more likely agricultural prices will rise relatively to other. If part of the increase in the output of industry takes the form of consumer goods, there would not be a general excess of supply. Nonetheless, there would be excess demand for food; it follows that the general price level will not remain constant.

4.- The factor likely to produce a rise in the price level when there is excess demand for food and excess supply of manufactures, is the greater sensitivity of agricultural prices to demand and the income distribution pattern. Prices in agriculture will increase more rapidly than a corresponding - theoretical - fall in manufacture prices. In the short run prices increase and agriculture switches demand from industry, where a low elasticity of substitution of food for manufactured goods implies a rise in the price of food.

5.- As we have said a lot depends on what happens in the labour market. If money wages begin to rise with a little lag, further pressure is put on agricultural prices. Moreover, costs in industry are affected (this in the long run depends on productivity and on the MST process). Inflation may be tempered if the rise in industrial output stems from a rise in productivity, since there is a bigger chance industrial goods prices will fall.* But if money wages respond very quickly to prices, the effects of productivity will be partially off-set and manufacture prices will not fall. The behaviour of food prices is determinant.

6.- A major assumption of the model is that the food output remains constant when industrial goods increase. This is circumstancial, however, because the important thing is that the food supply per capita does not increase at a rate appropriate to the increase in real income per capita. If, on the other hand, the relationship between real income growth, the structure of the supply of food and its income elasticity is more appropriate then there is a greater chance of price stability. If there is little or no up ward pressure on food prices owing to a satisfactory growth in agriculture, then the price level may even fall.

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*This may prove to be wishful thinking in Latin America due to the institutional setting of industrialisation or the external sector.

7.- The model is not unreasonable in a Latin-American country where food is still the largest item in total spending. In a free consumer market if the internal terms of trade move against agriculture, food prices will rise relatively to other prices, and if this involves an absolute rise in food prices then general inflation will result.*

Professor Maynard gives Argentina and Chile as examples of his model. In Argentina, from the 1930's to the early 1950's disposable gross income per capita rose by about 21%, whereas available food supply per capita declined by 7%. And, despite policy to promote agricultural production (1952-55) and the fact that the agricultural prices rose 20% more than manufactures (investment inducement in agriculture) inflation was intensified. The government could not prevent money wages from rising with prices nor could it change the behaviour of agricultural entrepreneurs. In Chile, after the war, the food supply per capita also rose very little and the concentration of income raised the elasticity of demand of food of the low-income groups with resulting price increases and a low demand for manufactures.

In both countries, writes the author, price instability was complicated by the export sector, which made the pursue of stable monetary and fiscal policies highly difficult. There is also no doubt that government control over spending and over the supply of money would have proved too lax for price stability. But the point remains: even if there had been no fluctuation in the terms of trade,** even if monetary and fiscal policies had been a model of rectitude, there would have been a pressure on prices arising from a too rapid rate of growth of industry against agriculture.

Professor Maynard thinks thus that the model may be applied to the whole of Latin America. 'At least two studies by ECLA (24) have demonstraded how agricultural production has failed to keep pace with population growth and other production since pre-war years. In 1955, for example, the per capita production of food in the region as a whole was about 6% lower than the pre-war figure. It is estimated that whereas real income per capita had risen by about 45% from the 1930's to the 1950's, food increases per capita had risen only by 8%. If an estimate of 0.6 is accepted for income elasticity of demand for food, then the available food supplies did not rise sufficiently to match a rise in demand

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*From here one could go into public intervention, institutional reforms and price controls specifically.

**One does not have to agree with this point. If exports were expanding securely surely the import of food could check agricultural inflation and allow for industrialisation. The Argentinian and Chilean cases are studied in Part III, Chapter II.

which (at unchanged relative prices of food and manufactures) would have been brought about by the rise in real income. It is significant that the post-war agricultural performance in Argentina, Chile, Colombia, Paraguay, Bolivia, Uruguay, and, to a lesser extent Brazil, has been poor while inflation has been high. However, one is here going already into empirical matter. Before doing this, a few concluding remarks on professor Maynard's model are useful as far as structuralism is concerned.

In conclusion, if the analysis is correct, the inelastic food supply and demand imbalance would not be eliminated unless either the growth in per capita income is held to a rate compatible with the growth of the food supply or the wage-salary classes accept a slower growth of wages than the real per capita income growth of other social groups. The model has been criticises mainly for two reasons: the use of a closed economy model in Latin America (which obscures the fact that industrialisation may not be 'excessive') and the need to push the rate of growth beyond that of agriculture when productivity increases and price stability are related.

Professor Seers writes: 'my criticism is in reference to his (professor Maynard's) comment on 'excessive' industrialisation!' His theoretical model shows that in a closed economy there will be an upward pressure on food prices if industrial output grows much faster than agricultural output, but a close-economy model has little significance for Latin America. The main criticism one can make of Latin-American industrialisation is not that it is excessive, but that it is unbalanced'. (25) Lagging output of major products has been an inducement to inflation (fuels, steel, chemicals) and there are infrastructural bottlenecks. Hence there is no excessive industrialisation and the industrial sector has contributed by itself to inflation. This has happened through import-substitution industrialisation, where the fundamental role of the external sector is introduced.

For structuralists growth - and growth that brings price stability - depends on productivity rises: productivity rises are more likely in industry due mainly to contemporary foreign trade trends, technology and other factors. 'The enormous benefits that derive from increased productivity, says Dr. Prebisch, have not yet reached the perifery in a measure comparable to that obtained by developed countries... hence the manifest discrepancies between their respective abilities to accumulate capital, since the margin of savings depends primarily on increases in productivity. Thus there exists an obvious disequilibrium, a fact which destroys the basic premise underlying the scheme of the international division of labour. Hence the significance of industrialisation not as an end in itself, but as the principal

means at the disposal of those countries of obtaining a share of the benefits of technical progress (26)*.

Resuming, it is very likely that agricultural inelasticities are behind the inflationary process as a 'more or less' autonomous cost force. Although changes in the structure of demand and institutional factors have to be accounted for). But its role has to be weighed in terms of the other main structural causes of inflation. That is, it is not realistic to abstract from the external sector or to consider simply that industrialisation has been 'excessive' (the subject will be discussed in section C). MST industrialisation has been imposed on Latin America through the trends in its primary exports; technological implications; employment commitments, that include the absorption of rural labour discarded by the technological growth in agriculture and the rate of population growth, and so on. In such a way that the rate of growth in agriculture should not be left to determine the growth of real income, least stagnation and unemployment may ensue. To take the extreme case: an extremist structuralist would argue for some countries an industrial specialisation and the import of foodstuffs. Still, the ideal structural situation would be to have an expanding external sector which would allow for a flexible and growing import structure. On the assumption of changes in demand and income elasticity and modernisation of agriculture, a relative decline in the agricultural sector would be compatible with a higher agricultural output, industrialisation, increasing urban employment, a larger domestic market for manufactures, and price stability from the factor of primary products prices.

(i i) Some empirical evidence

With the above precautions, however, the next step is to examine empirically the possible relationship between prices and the agricultural sector. Moreover it is very useful to beginthe exercise with the evidence that professor Maynard, in a posterior work of his (27), offers in what for the present work is a'historical setting'of the argument.

It should not be expected, writes the author, that food output per capita should rise in the same proportion as real income per capita; but if following ECLA, an estimate of 0.6 for the income elasticity of demand for food is accepted as reasonable (28), it is evident that available food supply in Latin America as a whole, dit not rise sufficiently to match the rise in demand (1939-1951),at unchanged relative prices of food and other goods, brought about by

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*Turn to section C.

the rise in real income. It is estimated that whereas income per capita in the area was about 45% higher than in the pre-war, food supply per capita was only about 8% higher. In other words, to avoid undue pressure on food prices relative to other prices, the income elasticity of demand would have had to be less than 0.2 It is clear that a large change in relative prices was required to produce balance in the demand and supply of food , and this could hardly be achieved, if at all, except in the context of prices increases; hence it is not surprising that food prices may have led the way in the chronin inflation of many Latin American countries.*

Real Income and Food Supply in Pre- and Post-War (Per capita terms)

Country	Available food Supply		Disposable Gross Income	
	1934/8	1949/51	1934/8	1949/51
Argentina	100	97	100	135
Brazil	100	105	100	150
Chile	100	113	100	122
Colombia	100	134	100	135
Mexico	100	113	100	177

Source: United Nationas, The Selective expansion of L.A. Agriculture

Looking at individual countries, it is clear that in all cases, except Colombia, the required income elasticity of demand to avoid pressure on food prices, would have had to have been lower than in fact was likely to be in the cases of these countries. The relationship between food supplies and income growth is obviously very unbalanced. Colombia's position seems satisfactory except that the most substantial contribution to an increased food supply came from imports. This, means that food supply was presumably not only precarious, but that agriculture played an indirect part in inflation. Mexico presents a peculiar situation. Although the relation between income and food is unfavourable, here post-war development may be more pertinent than pre and post-war comparison. The rise in food supplies seems to have taken place since

*Even assuming official price controls, which judging by food price indices were on any event weakly enforced.

the 1950's. The opposite is true for Chile: the supply of food contracted only after the war. If this hypothesis is true, it would explain the growing price stability of Mexico and the growing inflation in the other countries.

Similar information did not exist for the rest of our countries. However, professor Maynard says that the almost hyper-inflations of Paraguay and Bolivia were largely connected with the shortage of food. Bolivia, indeed, provides a striking illustration between inflation and backward agricultural development, but in the context of a political and edonomical revolution (29).

If we now turn to more recent data, the agricultural supply inelasticity of Latin America seems to have grown in the majority of cases more acute (See Table I). For the period 1953-1965, agricultural and food production in per capita terms * declined in Argentina and Chile and stagnated in Colombia and Peru. On the other hand, they apparently grew very mildly in Uruguay and Paraguay and grew noticeably in Brazil and Mexico. Thus in the first four countries agricultural output lagged very badly behind the growth of real product. The fact undoubtedly contributed to the inflation. Mexico can also be interpreted in structuralist terms, since both agriculture and real product have grown fastly - and more in unison - and the rate of inflation has decreased. However, the 'apparent' exception of Brazil, Uruguay, and Paraguay all very inflationary countries, have to be explained. Despite Brazil's spiralling inflation, agriculture and total output have grown and, what is more, at similar rates. One should not imply from this, at least here, that inflation has helped growth. The indices include coffee for the external market; so that if these figures could be substracted the growth of agricultural production for the domestic market (which is the relevant one in the possible relation between prices and an agricultural bottleneck) perhaps would not be favourable. The Uruguayan trend is not significant because both agriculture and total output have fluctuated violently and much depends on the years chosen (See Table III). In Paraguay the case seems to be one of hardly any growth, a lagging agricultural sector, and a chronic inflation, that nonetheless has lost momentum.

On the whole, these observations appear to be confirmed with the general figures for the 1950-1965 period in Table II. The rate of growth of the agricultural sector has behaved very poorly in all countries and it has lagged behind the rates of growth of the non-agricultural sector and GNP. The exceptions are only Mexico and Brazil. Thus, on these very general grounds, it may be claimed that structuralists are right when they claim that there is an agricultural bottleneck; which has probably played an autonomous role in the region's inflation. Mexico is no exception. As the agricultural output

* See footnote in following page.

increased, inflation grew milder. Brazil, with the reservations we now turn to below, does not seem to fit into the assumption; unless one wants to claim that inflation either helped or remained neutral in the face of agricultural growth.**

The question remains of how to get 'closer' to establishing a relationship between the rate of inflation and the agricultural supply? Perhaps a better indicator is that of the relation between annual changes in private consumption and real changes in food and agricultural production per annum (See Table 3). Again, the most inflationary countries - in this case, Argentina, Chile, and Uruguay - have the highest monetary consumption rates, accompanied by fluctuation and slow rates of growth in agricultural production. On the other hand, the less inflationary countries - Colombia, Peru and particularly so in Mexico - have more moderate increases in private consumption and higher rates of agricultural growth. Brazil continues to be a relative exception. Although its rate of 'inflationary' consumption is high (32%), its rates of food production (4.5%) and total agricultural output (3.7%) are also relatively high. Still, if coffee and cotton production could be substracted perhaps the rates of food and agricultural production would not be so favourable.

Aside from this, the discrepancy between a very high rate of growth of consumption and a slow and fluctuating rate of agricultural output is very significant. This may be taken as indirect evidence of pressure on prices through the agricultural sector. Hence the structuralist argument would be twofold: there is a discrepancy between the growth of consumption and the growth of agricultural output and the discrepancy is more conspicous in the more inflationary countries. The fact should be reflected on food prices. Take Chile and Mexico, consumption grew on average by 32% and 13% and food production by 2% and 5.8% respectively; while in the first the rate of inflation was 22.6% and on the latter 5.3% (1948-1965).

A statistical test of the structuralist agricultural argument ought to be based on the agricultural and food production for the domestic market-per capita terms are useful to stress the structural change brought about by the rapid growth of population- and on the relevant price indices. Data on the agricultural and food production for the domestic market (that is, the one net of primary exports) was not found except for Mexico. The importance of agricultural exports in the structure of Latin America's agriculture is, of course, very considerable. In fact, this is a serious limitation of the tests that follow: The establishment of a relationship between movements in

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(from preceding page)

* The limitations in the use of these indices with respect to inflation are discussed below.

** See next page.

agriculture and food and prices, cannot be direct and only in terms of the domestic market.

An indirect test of the structuralist argument would mean working with total agricultural and food production. A guide-line to the limitation may be stated in these terms: The greater the importance of the production of agricultural commodities for export in a given country the lesser the reliance in the text between agricultural inelasticity and inflation. The majority of the nine Latin-American countries used to test the structuralist argument are important exporters of agricultural products (See Table IV). But some to a lesser extent than others. On the one extreme is Chile and Bolivia and on the other Ecuador; passing through, in the following order, Mexico, Peru, Argentina, Paraguay, Uruguay, Brazil and Colombia. That is, the possible relation will be more relevant for Chile because Chile hardly exports agricultural commodities and hence most of its agricultural production is for the domestic market and hence the possibility more difect of a relation between agricultural inelasticity and prices, consumption, and income. On the other hand, the test will be very indirect for Ecuador because the almost totality of its exports comprises agricultural commodities. The rest of the countries are in intermediate positions: Mexico and Peru closer to Chile and Argentina Paraguay, Uruguay, Brazil, and Colombia closer to Ecuador. This is then the limitation and the indirectness of the test. Despite the limitation the test will be carried out for an obvious reason: total agricultural and food production is related to the domestic demand, although not in the net manner that the exclusion of exports would provide. Moreover, when one is working with production figures, imports of food are excluded.

Still a simple direct indicator of food supply inelasticity reflected on prices is the comparison between annual changes in consumer prices for food and the cost of living. The higher the former the more likely the probability of agricultural cost-push. If we turn to Table V, in fact no generalisation can be made between the inflationary countries.

However, there is evidence that food prices have increased more sharply than the cost of living in at least Chile, Peru, Uruguay, and Paraguay. This could be taken as evidence of the greater relative weight agricultural inflation has had in the inflationary process. Furthermore, this would emphasise the existence of an agricultural bottleneck.

(From page 122)

** Remembering the evidence in the monetarist chapter, it appears as far that Brazil - and perhaps Uruguay too - are cases of demand inflation.

TABLE I

Indices for Real Output, Food Production, and Agricultural Production
(per capita terms)

Country	Food Production		Agricultural Production		G N P	
	1953-56	1965	1953-56	1965	1953-56	1965
Argentina	100	87	100	89	100	120
Brazil	100	122	100	122	100	126
Chile	100	95	100	95	100	112
Colombia	100	99	100	102	100	117
Peru	100	99	100	101	100	139
Uruguay	100	109	100	107	100	90
Mexico	100	122	100	120	100	144
Paraguay	100	103	100	104	100	114

Source: Estimated from International Agricultural Statistics, FAO-Rome 1968 and Statistical Yearbook, UN, N.Y., 1966.

TABLE II

Growth Rates of Population, Agriculture and GNP 1950-65
(percentages)

Country	Population	Agriculture	Per Capita	Non Agricultural	Total G N P
Argentina	1.8	1.9	0.1	2.9	2.7
Brazil	3.0	4.8	1.8	5.5	5.3
Chile	2.5	3.2	0.7	3.8	3.8
Colombia	2.8	3.1	0.3	5.5	4.6
Peru	2.6	4.0	1.4	5.7	5.3
Uruguay	1.2	0.5	-0.7	1.3	1.2
Mexico	3.2	4.2	1.2	6.4	6.0
Ecuador	3.2	3.9	0.7	5.0	4.6
Bolivia	2.1	1.2	-0.9	1.4	1.7
Paraguay	2.4	2.5	0.1	3.2	2.9

Source: Agriculture in Latin America, ESLA, UN, N. Y. 1968 (pag.325)

TABLE III

Annual Changes in Private Consumption at Market Prices (C) and Annual Changes in Real Food (F) and Agricultural (A) Production and the Compound Rate of Growth (G) percentages

Country		1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	G
Argentina	C	35	16	42	22	8	19	21	28	26	39	43	24	21	20	27	38	33	27
	F	-	-	-	-	-2	7	-4	14	-8	8	-6	-7	12	4	14	-2	-12	2.0
	A	-3	3	3	-3	-3	6	-5	14	-7	9	-6	-7	10	4	13	-2	-11	1.7
Brazil	C	20	18	24	13	38	22	28	28	22	25	31	36	24	61	71	97	-	32
	F	-	-	-	-	8	7	3	6	6	4	2	4	5	4	2	6	10	4.5
	A	3	8	4	1	2	5	7	-1	10	6	9	3	6	2	-3	-2	17	3.7
Chile	C	21	19	25	33	30	80	53	58	44	29	37	19	11	14	52	48	36	33
	F	-	-	-	-	5	2	6	3	-3	12	-6	2	5	-1	8	0	-4	2.0
	A	8	10	-4	-2	5	2	6	3	-2	11	-5	2	5	-1	7	1	-5	2.0
Colombia	C	24	24	16	8	10	17	4	7	18	18	12	16	13	12	21	20	8	15
	F	-	-	-	-	-2	0	8	2	-2	4	5	1	1	7	-2	9	5	2.3
	A	1	14	-1	4	-2	2	4	-1	1	9	4	3	-1	7	0	4	6	2.3
Peru	C	16	19	18	13	12	6	12	10	8	14	18	13	26	16	15	18	22	15
	F	-	-	-	-	5	5	0	-5	3	6	2	12	2	1	2	5	-1	2.8
	A	9	1	4	6	4	6	0	-3	1	7	3	12	2	2	2	3	-1	2.9
Urnguay	C	-	-	-	-	-	-	-	11	19	7	41	49	18	10	17	50	-	25
	F	-	-	-	-	18	-6	-2	-3	1	-12	-10	16	2	4	1	17	0	nil.
	A	6	13	2	4	12	-9	-4	-4	0	-11	-13	14	0	0	5	9	-02	nil.
Mexico	C	6	19	33	8	-1	21	20	13	17	13	6	13	5	9	7	16	8	13
	F	-	-	-	-	10	12	7	6	15	7	-1	3	8	3	2	9	1	5.8
	A	5	10	5	1	9	16	8	2	13	8	-6	6	6	3	3	8	1	5.9

Sources: Private Consujmption, IFS, IMF; and, Food and Agricultural Production, Yearbook of International Agricultural Statistics, FAO, Rome, 1966.

TABLE IV

Structure of Exports by Principal Commodities [a]

(1959-1963 averages)

Country and Commodity	% of total X	Country and Commodity	% of total X
Chile		**Paraguay**	
Copper	66.3	Meat and hides	33.8
Nitrate	6.0	Tanning extracts	9,1
Iron Ore	8.9	Wood	16.8
Other	18.8	Cotton	5.7
Bolivia		Other	34.6
Tin	61.4	**Uruguay**	
Silver	4.8	Wool	54.9
Lead	5.6	Meat and hides	26.2
Other	28.2	Wheat	1.0
Mexico		Other	17.9
Lead	3.9	**Brazil**	
Zinc	2.1	Coffee	54.2
Copper	3.7	Cotton	6.3
Petroleum	3.5	Cacao	5.1
Cotton	19.8	Other	34.4
Coffee	8.1	**Colombia**	
Other	58.9	Coffee	71.7
Peru		Petroleum	15.8
Lead	7.9	Bananas	2.9
Copper	15.9	Other	9.6
Iron	6.5	**Ecuador**	
Petroleum	3.3	Bananas	61.2
Cotton	17.7	Coffee	12.9
Sugar	11.5	Cacao	13.1
Other	37.2	Rice	1.8
Argentina		Other	11.0
Corn and wheat	21.6		
Meat and hides	22.4		
Wool	13.0		
Other	43.0		

a) Source: OEA, America in Cifras 1963, Washington D.C. 1965.

In Argentina, Brazil, and Mexico the situation is not clear one way or the other. That is, alternatively, there is no evidence that food prices have lagged behind the cost of living. Colombia is an exception. Professor L. Currie has found that prices of agricultural products for domestic consumption have lagged behind other prices. Government prices controls along with inflation have played a role in keeping farm prices relatively low in Colombia (30). In the other three countries, although food price increases have been very significant, the internal terms of trade between agriculture and the other sectors have suffered various changes. This is evidence of changing government policies and price controls, not of agricultural elasticity. Nonetheless, from the previous data, it is true that Argentina's agricultural production has grown inelastic while prices have clearly tended to increase; the opposite is true for Mexico. Brazilian inflation, on the other hand, cannot be interpreted in structural terms with over simplistic evidence.

Returning to the purpose of this work, however, the simplest test for the structuralist argument would be the establishment of a relationship between the changes for food production in per capita terms - to stress the change in demand - and the movements in consumer food prices. The test could also be extended to the production of agricultural raw materials and the relevant wholesale price index. We shall concentrate on the first relation, with the limitation that food production here includes exports (See Table VI)

It is true that annual percentage changes in food production per capita, except in Mexico and Ecuador, have been rather poor in all the countries. One may as well speak of a tendency towards yearly decreases in Argentina, Chile, Colombia, Uruguay and Paraguay; and of a very slow rate of food production in Brazil and Peru. It is also true that the most inflationary - countries in terms of the cost of living have also had the highest annual increases in food prices. Whereas the less inflationary ones - Ecuador, Mexico, Peru, and Colombia - have had more moderate increases in food prices. Thus three things stand out: food production per capita has been poor; price increases in food have been high; and there is a logical distribution, on both counts, between lesser and more inflationary countries with the exception of Brazil.

But paradoxically, it is very difficult to establish a year to year relationship between food prices and food production. The structuralist argument should be one where the annual changes in food production are related to the rate of inflation, both in terms of the cost of living and consumer prices. It was thought unlikely that a statistical correlation would through further light, however this was tried under the following assumptions:

TABLE V

Annual Changes in Consumer Prices for Food (FP) and the Cost of Living (P), 1947-1965

(percentages)

	Year	Argentina		Brazil		Chile		Colombia		Peru		Uruguay		Mexico		Paraguay		Ecuador	
		PF	P	PF	P	PF	P	PF	P	PF	P	PF	P	PF	P	PF	P	PF	P
*(@&	1947	14	13	20	19	34	23	20	18	38	29	24	15	15	13	-	-	-	-
	1948	3	14	14	18	16	18	15	16	34	30	-25	2	5	6	-	-	-	-
	1949	3	29	-4	10	15	20	4	7	16	13	0	5	4	6	-	-	-	-
	1950	37	33	1	4	25	17	9	21	12	14	17	-4.7	14	4	-	-	-	-
	1951	37	33	4	8	25	29	9	9	12	10	17	15	14	13	-	-	-	-
	1952	45	38	30	25	44	22	-5	-3.2	8	6	21	15	17	15	145	117	-	-
	1953	3	5	35	20	9	18	10	8	11	9	8	6	-4	-3	85	73	-	-
	1954	-1	4	19	19	86	77	11	9	7	5	11	12	23	6	0	20	-	-
	1955	11	13	19	20	70	74	-3	-1.4	6	5	14	8	7	16	20	24	-	-
	1956																		
	1956	14	13	13	22	56	58	7	7	4	5	9	7	6	4	28	21	-	-
	1957	37	25	11	19	41	25	20	14	7	8	18	15	12	6	15	16	1	0
	1958	37	32	12	15	8	27	16	7	8	8	20	18	12	12	6	6	2	2
	1959	133	114	44	37	38	39	3	4	16	13	50	40	1	2	15	10	-2	0
	1960	22	27	44	35	15	12	4	6	11	8	41	39	4	6	10	8	-1	3
	1961	10	14	35	38	10	8	12	9	8	7	14	22	1	1	22	18	5	2
	1962	28	38	58	52	17	14	-2.5	3	6	5	12	11	1	1	0	1	3	4
	1963	23	24	67	75	49	45	39	32	8	7	18	21	0	1	0	2	7	3
	1964	27	22	96	85	51	46	25	17	12	8	51	43	2	3	3	1	6	6
	1965	28	29	50	61	30	28	-2	4	18	16	60	56	5	4	-	-	-	-

Sources: International Financial Statistics, IMF, 1966 and Statistical Yearbook UN, N.Y. 1955 and 1967.

TABLE VI

Annual Increases of Food Prices[a] and Annual Changes of Per Capita Food Production[b] 1946-65

(percentages)

Country	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
					d)								c)						
Arbentina																			
Prices	15	3	3	37	37	45	3	-1	11	14	37	37	133	22	10	28	23	27	28
Food	17	-2	-8	0	-5	4	-4	5	-6	13	-11	7	-9	-7	8	3	11	-4	-13
Brazil																			
Prices	14	-4	1	4	30	35	19	19	13	11	12	44	44	35	58	67	96	50	48
Food	0	-4	4	3	5	1	3	4	1	3	3	1	0	1	2	0	0	3	7
Chile																			
Prices	34	16	15	25	25	44	9	86	70	56	41	8	38	15	10	17	49	51	30
Food	1	5	3	4	-4	-6	3	0	3	0	-5	10	-8	0	-2	-3	6	-4	-5
Colombia																			
Prices	20	15	4	9	9	-5	10	11	-3	7	20	16	3	4	12	-2,5	39	25	-2
Food	10	3	1	13	-2	5	-5	-2	4	-4	-4	0	2	-2	-3	4	-4	4	2
Peru																			
Prices	38	34	16	12	12	8	11	7	6	4	7	8	16	11	8	6	8	12	18
Food	9	12	-3	1	3	5	3	3	-2	-3	-4	4	-1	8	-1	-2	-1	11	-9
Uruguay																			
Prices	24	-2,5	0	17	17	21	8	11	14	9	18	20	50	41	14	12	18	51	60
Food	-8	1	14	6	1	2	13	-2	2	-3	1	-12	-10	16	2	4	1	17	0

Country	1947	1948	1949	1950 a)	1951	1952	1953	1954	1955	1956	1957	1958	1959 b)	1960	1961	1962	1963	1964	1965
Mexico																			
Prices	15	5	4	14	14	17	-4	23	7	6	12	13	1	4	1	1	0	2	5
Food	2	7	4	-1	7	-1	7	10	2	3	10	4	-4	-1	4	0	-2	5	-2
Ecuador	-	-	-	-	-	-	-	-	-	-	8	1	6	6	6	6	5	5	-
Food																			
Prices	-	-	-	-	-	-	-	-	-	-	1	2	-2	-1	5	3	7	6	-
Paraguay	-	-	-	-	-	145	85	0	20	28	15	6	15	10	22	0	0	3	5
Prices																			
Food	-	-	-	-	-	-1	2	0	4	-1	2	-4	-1	3	-2	1	1	-1	-

Sources: a) Statistical Yearbook, UN, N.Y. - 1951, 1953 and 1966.

b) International Agricultural Statistics, FAO, 1968, Rome.

1.- Correlations were estimated for per capita food production and the changes in the cost of living and food consumer prices.

2.- The correlations were in unlagged terms; lagged to the reflected in next year's prices (P+1) and in two years time (P+2).

The results should have been a high correlation coefficient that reflected, namely, decreases in food production accompanied by higher prices. As it may be seen below, there was really no statistical correlation between the two variables:

Food Correlation Coefficients for Per Capita Food Production and Food Prices (FP) and the Cost of Living (P), for 1947 - 1965.

Country	FP	FP+1	P	P+1
Argentina	-0.3	nil	-0.3	nil
Brazil	nil	nil	nil	nil
Chile	-0.2	0.3	nil	0.4
Colombia	-0.2	nil	nil	nil
Peru	0.47	0.5	0.4	0.5
Uruguay	nil	nil	nil	nil
Mexico F	0.3	0.5	0.1	0.5
FDM	nil	nil	-0.4	0.4
Paraguay[a)]	nil	nil	nil	nil
Ecuador[b)]	nil	0.6	0.2	0.4

a) 1952-1964, b) 1957-1964

It is surprising to see, however that in those cases - Ecuador, Mexico and Peru - where the coefficient had some significance (0.4 to 0.6) it was of the wrong sign. That is, it would appear that a higher production was accompanied by higher prices. This cannot be blamed on favourable international prices for foodstuffs because the indices are for the domestic economy. Moreover it is worth to notice that these three countries have the mildest rate of inflation of the group and better rates of food output. Would this mean that a milder inflation stimulates agricuotural production? From this general data, however, nothing should be concluded.

As it was said the main limitation of the above comparisons seems to be not having the agricultural production figures for the domestic market, These are, however, available for Mexico. Thus the structuralist argument appears to be present: as agricultural production for the domestic market expanded - and expanded at high rates that even exceeded those for export from 1954-1959 - both food prices and the cost of living in general fell noticeably.*

Mexico: Agricultural Indices, Rates of Growth, and Prices Changes 1945-65 (1950=100)

Period	Crop Production for Domestic Consumption	G	FP	P	Crop Production for Export	G
1945-49	86.1	-	-	8	53.0	-
1950-54	110.3	4.9	13	7	110.9	14.7
1955-59	159.9	7.4	7.6	8	160.3	7.3
1960-64	206.7	5.3	1.6	2.4	189.1	3.3
1965	250.2	21.0	5	4	222.7	3.3

Source: Economic Survey of Latin America, UN, N. Y., 1966 (pag. 185).

In synthesis what may be concluded from this exercise? Does the structuralist argument of agricultural bottleneck and inflation hold? On general grounds it appears that structuralists have indeed a good case when they speak of a lagging or stagnating agricultural sector and spiralling cost inflation. The distribution of lesser and more inflationary countries with respecto to agricultural inflation, moreover, was significant. That is, except for Brazil where a more detailed study of the structure of agriculture production is a sine qua non.

In fact, the main limitation of this study is a reflection of the generalities implied by the controversy itself. It is true that structuralists have a case, but it is of such a general nature that, with the aid of simple tests it is very difficult to establish the relationship between lags in agricultural production and the rate of inflation. This cannot be blamed on price controls

*A statistical correlation was tried between production for the domestic market and the price changes, but the results were not significant (see Table in previous page).

either, because consumer prices for food have been spiralling in most cases. It seems that, aside from the general argument, fundamental questions in the controversy require an answer. How does the agricultural bottleneck affect prices? How has the structural change in demand and the changes in income distribution affected the agricultural sector? What has the impact of MST industrialisation and international trade been on agricultural prices? Before these and other more specific questions - both statistical and theoretical - have been answered anti-inflationary policies for agriculture will remain obscure and insecure. One may, of course, claim that structuralists are correct in their argument, but that the nature of their argument, for the time being, does not lend itself to its corroboration of to the establishment of anti-inflationary agricultural measures.*

Thus the 'empirical'observations made by this study should only be taken as a generality. There seems to be much scope first for individual studies and later for compatible inter-regional comparisons on the subject of agricultural bottlenecks, and inflation. An agenda for research could perhaps comprise the following steps:

a) A disaggregation of the agricultural supply structure.
b) The analysis of the cost of living index in terms of the relativa weights of food and raw materials.
c) The composition of adequate food and raw material consumer indices that include considerations for:
   (1) Changes in the structure of aggregate demand
   (2) Considerations in terms of income distribution groups - or changes in the demand elasticity for primary products -
   (3) Corrections for official price controls, international primary commodity prices, and import prices for food and raw materials.
(d) The establishment of dependence and relationship of the agricultural sector with the behaviour of the industrial market.

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*However, something will be said on the subject in Part III, Chapter 2.

b) The Foreign Exchange Argument

Most structuralists concentrate their argument on the structural causes of inflation, the external desequilibrium and the limitations of foreig exchange. What, in very crude terms, does this mean? Structuralism emphasises that the behaviour of primary exports (with value and quantum implications and short and long run tendencies, taken together or separately) have caused price instability, plus a host of related problems. Secondly, the argument extends to the behaviour of imports and industry. The 'initial' relative decline in exports brings forth the need for industrialisation based on imports: which in itself - this need for imports - is limited by the behaviour of exports. Thirdly, the argument is further extended to the general balance of payments deficit, and the need for foreign capital which results in foreign indebtedness. The over-all argument is then a foreign exchange bottleneck - resulting from three sources: declining or slow growing exports receipts, rising or essential imports, and rising debt repayments.*

Thus the behaviour in exports and foreign exchange in general result in a structural cause of inflation. But, what refers to the induced need for import-substitution industrialisation and the induced behaviour of imports is more of an inflationary <u>policy</u> measure than an <u>original</u> cause of inflation. Hence, in the analysis of the structural causes of inflation below, this section shall concentrate on the first and third parts of the argument. The following section (c) will deal specifically with the policy of import-substitution as a structural <u>cause</u> of inflation and external desequilibrium.

Stated in these terms (see also the introduction to this chapter) the argument is the main chapter in the controversy. But, it is also a 'financial' extension of the <u>centre and periphery</u> theory - the international trade protectionism defended in Latin America mainly by ECLA and Dr. Prebisch.* It is hard to say which comes first - structuralism or centre and periphery - or which relies more on the other. Chronologically, while in the late 1940's structuralist theories were being discussed in Mexico City**, much work was being done in Santiago and Buenos Aires on a 'new international trade theory' for Latin America. While these two theories - which developed intro controversies - are really one, this work purely for analytical purposes will abstract from the international trade controversy as it is mainly concerned with inflation. The main issue at stake here is the argument on the deterioration of the external terms of trade (DTT); something which in a strict sense is not necessary to stress the existence of a foreign exchange bottleneck nor its possible inflationary impact (see again the discussion on devaluation).

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* For a Resumé and an introduction into the theory see Dr. Prebisch (1)

** One of its main exponents was Mr. J. Noyola (2).

The subject is divided into four parts: (i) the behaviour of exports and the import repercussions; (ii) some empirical evidence; (iii) foreign indebtedness; and (iv) some final remarks.

(i) The behaviour of exports and the import repercussions.

The structural cause of inflation one has in hand may be stated in a question. How does the growth of income at a more rapid rate than the export performance release inflationary forces that upset monetary stability and place a limit on the rate of growth of a Latin-American economy? If there is to be stability the rate of growth of exports, the demand for imports, and the growth of income must be compatible.* Dr. Prebisch puts it in the following terms (3).

If primary exports grow at 2% per capita, per capita income can be raised at the same rate only if the demand for imports also increases at 2%. (If the income elasticity is one) But, if imports expand at a higher rate, it will not be possible for income to rise spontaneously at the same rate as exports. Say that imports expand by 1.50 for each 1% in the increase in per capita income, then the latter cannot rise by as much as 2%, since in that case the demand for imports would go up by 3% and exceed the rate of growth of exports. If growth is to be accompanied by external balance, the annual growth of per capita income must not exceed 1.33 since this only rate will result in a 2% growth of imports, the same rate as for exports. It follows that if the rate of growth of per capita income is to rise at more than 1.33%, import-substitution is essential. An annual per capita import-substitution rate of 1% is required if income is to grow by 2%. A 3% rise in per capita income would require an expansion of 4.5% in import demand, of which 2.5 would have to be met by domestic production in order to maintain growth and equilibrium. The rate of growth of exports, clarifies the author, is lower then the one of the example, and in some cases exports have declined. Hence the great proportion which import substitution has to assume (the process, of course, has inflationary consequences of its own).

Mr. Felix puts it in the following way (4): (there is a) 'tendency for the Latin-American demand for imports to outrun the demand for Latin-American exports. This need not, of course, hold for each individual country... Restricting ourselves, however, to aggregative relations between Latin America and its trading partners, the United States and industrial Europe, the argument runs as follows+ the income elasticity of demand for Latin America's

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*In a strict sense one cannot generalise about inflationary Latin-American economies; however, for some evidence on the incompatibility of the trends in these variables turn to Tables

ports, which consists overwhelmingly of raw materials and specialised food stuffs, is less than unity. That is, the demand for these products rises less than the rise of real gross national product in the United States and other industrial regions. On the other hand, Latin America's demand for the exports of its trading partners is greater than unity. This is particularly true of the demand for capital goods, since the indigenous capital goods industry is inadequately small... Thus, with no deliberate interference with the technological and behavioural forces determining these demand relationship, Latin-American countries would be unable to maintain a rate of growth of per capita income equal to that of the advanced countries even were they to sustain equivalent savings-to-income ratios, without incurring repeated balance-of-payments crises and devaluations... Given the social necessity of a high growth rate, the coice reduces itself to the means of meeting the chronic foreign exchange shortage: to whether incur repeated open devaluations or slow its frequency by exchange and import controls. Both alternatives are inherently inflationary'.

It is generally agreed that demand and supply elasticities with respect to primary production tend to be rather low. It is also true that prices of primary products are normally determined by international markets rather than by individual producers. So that discrepancies between world demand and supply tend to produce sharp movements in prices rather than in output; and the export receipts and TT of primary producing countries therefore suffer from instability.* The rate of world demand may vary in such a way that producers of primary products will be induced to vary their output in response to demand and that such a response may prove excessive bringing about a later imbalance in the opposite direction.

However, concentrating on the short run, assume that there is a favourable world demand for primary products and, therefore, in the export prices of primary products. It is reasonable to assume that the net TT (export prices divided by import prices) of the primary products will also move favourably, since generally the elasticity of supply of manufactured goods is higher (this, of course, depends on what sort of wage hypothesis is made).

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*The theory in the long run imdes an unfavourable trend where there is a growing divergence between the receipts of primary-product export countries and those that export manufacturers obtain; plus productivity and employment consequences that take disadvantageous forms for the first and advantageous for the latter.

But, for the primary producing country this will mean that real income is rising faster than real output, while this may take the form of higher consumption (at least for a group of the population), there is an opportunity for higher real savings and investment; higher real income can yield higher real investment rather than higher real consumption. The second consequence is that the capacity to import will expand. The fact may be vital, if investment in primary-producing countries depends on the capacity to buy capital goods abroad. The foreign exchange earned abroad, of course, need not be invested; it can be consumed or used to purchase foreign assets.

Whether the opportunity to invest will be taken depends on what happens to income and prices in the domestic economy. If the exchange rate is kept stable, export profits and income receive the initial benefit. The effects, however, can spread to other sectors. The government itself is likely to benefit through higher tax revenues coming from the export sector. Some of this income is likely to be spent on domestic industries, setting-off multiplier effects, which may raise the inducement to invest in sectors of the economy other than exports. The situation may well become inflationary if the rise in export prices and income is substantial. Wages may rise when profits and demand are rising, and the cost of production will too. So at the same time, it is unlikely that imports can raise sufficiently to satisfy all the increases in money incomes and demand, while in the short run at least, the elasticity of supply will be normally low. But, provided that wages do not rise at a much faster rate than prices, some real capital accumulation will take place. The beneficial effects of a rise in export prices and improvement in the TT* can, therefore, be as follows: real income is caused to rise faster than real output, while at the same time the growth of the latter is promoted by a rise in the capacity to save and to import, and in inducement to invest. And to the extent that faster growth takes place, it will be accompanied by rising prices. According to structuralism, presumably, this is what did not happen in Latin America; but, paradoxically enough, neither for monetarists, as we have seen.

These favourable effects tend to be quickly dissipated if the rise in export prices is purely a temporary boom, to be followed by a precipitate slump; or, worse still, when there is persistent downward trend. Unfortunately, short run instability of export prices seems to be the fate of many primary producing countries. The economy barely has time to adjust itself

* The reference is strictly to the external income terms of trade. However, for a wider discussion on the subject see The income terms of trade and developed and developing countries by T.Wilson, R.P. Sinha and J.R. Castree in The Econ. Journal, 1964.

to a rise in export receipts and income when the subsequent collapse forces re-adjustment. Perhaps the greatest difficulty arises from the fact that inflation becomes more difficult to control when export receipts and income fluctuate. It might be thought, however, that when export prices fall inflation would be automatically checked, and perhaps prices in general might even fall. Often this is not the case, and at least three factors can be relied on to increase inflation rather than check it:

1.- DTT bring about a check on the growth of real income; indeed, real income is likely to fall in absolute terms if the export sector has a very high weight on the economy or if imports are indispensable. If real income does fall, it transforms a rise in wages, profits, and prices - which when export prices were rising served to foment capital accumulation - into a vicious spiral with all sectors fighting to maintain their relative share of income. Thus the likely-hood of checking inflation is less.

2.- A fall in export prices often causes public deficits to rise, something which may lead to credit creation and to further inflationary pressures.

3.- A balance of payments crisis is often precipitated, since there may be many difficulties to cut imports. If accumulated reserves are not enough, exchange depreciation follows. Import prices now rise while the fall in export income (in domestic currency) may be somewhat checked. But in any case the cost of living will have climbed more.

It follows that fluctuations in primary product prices are a source of monetary instability, and stability would be more likely if they were eliminated. Unfortunately, however, fluctuations cannot be got fid of by the action on the part of primary countries alone: the industrial countries, who are the buyers of primary products, also play a part. Agreement between buyers and sellers of primary products is not always easy to reach, for whereas the latter are interested in obtaining a long term rise in primary product prices, the former would clearly prefer a long term fall. Hence agreements have frequently broken up*. The common place statement that follows is: UDC see the way out in the reduction of their dependence on primary product exports, and in the overall diversification of their economies. But, industrialisation, which is taken as the solution to the problem may in itself create further price instability.

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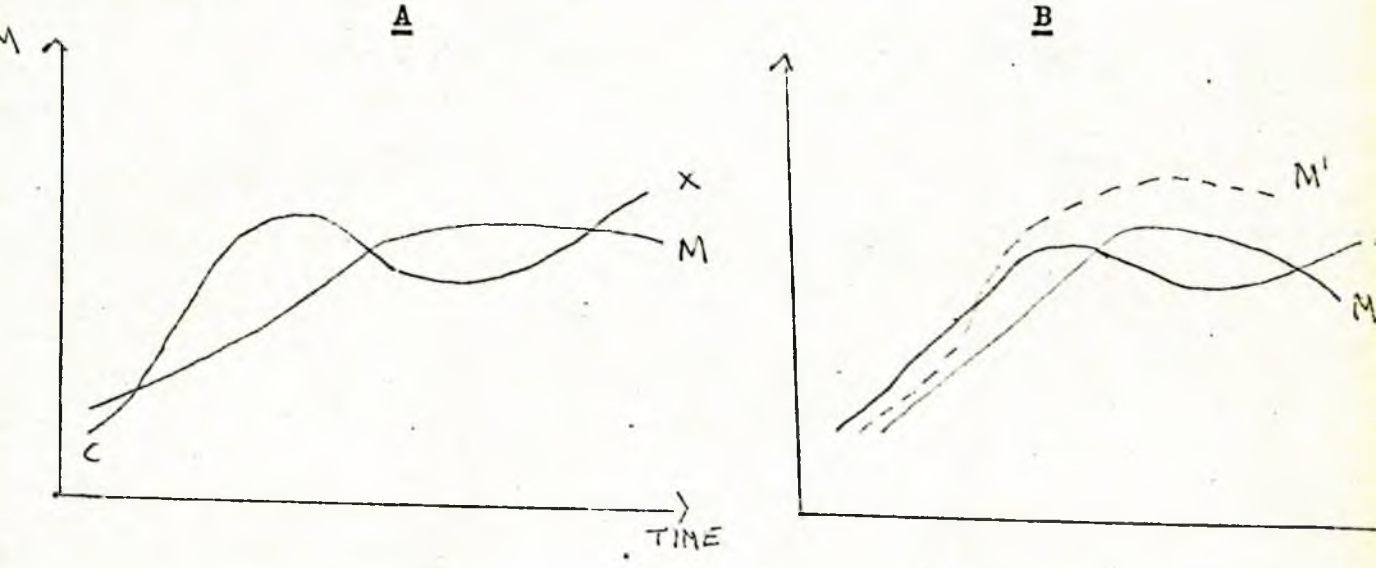
*Here, of course, one can take up the literature that goes from the Havana Conference to the New Delhi one, passing through the GATT programme, the Geneva Conference, the Kennedy Round, and the commodity trade agreements.

It is thus important to concentrate on what may be called a cyclical decline, where exports in value either decline, stagnate, or grow very slowly. With a decline in exports, however measured, over-all demand falls initially, investment is discouraged employment in export activities may be reduced, and there will be depressive effects on over-all employment, income and imports. The Government suffers from the same dpressive effects and the effort to maintain its expenditure and investment through deficit financing may lead to inflation. These effects tend to relieve the contraction of the economy and to give private investment encouragement with recourse to credit expansion. However, if the impact of a contraction in exports on income is attacked in this way, the decline in imports is prevented and the external desequilibrium is intensified. The continuation of such a policy makes monetary depreciation and inflation invevitable. This argument may appear to be close to monetarist: granted that a decline in exports starts an imbalance that is attacked with budget deficits and credit expansion and inflation would ensue. Structuralists, however argue that the cure is not an anti-cyclical policy - budget and money retrenchment - but a 'structural' change. This is, of course, an import-substitution policy of different theoretical implications however inflationary it may in itself be - to which we shall turn to later.

In order to understand the magnitude of the external desequilibrium and inflation, it is important to see how the growth in exports (X) entails an increase in imports (M) as part of the cyclical movement. Allow us to follow Dr. Prebisch in this phenomenon (5):

The Export and Import Cycle



When there is no inflationary pressure (A), curve M always drops below curve X; but, while during the upward swing, this lag indicates a surplus of X over M; during the downward swing the opposite occurs. There is no inflationary pressure because foreign currency was accumulated in the upswing to cover-up the coming gap. Reserves will not be completely exhausted if X stop declining at a level higher than their starting point (C). But there will be inflationary pressure when M tends to increase with greater spped than X and approach or even exceed X during the upward swing (B)1 If expenditure in M is covered by bank credit (M) this will bring an external desequilibrium and an inflation somewhat proportionate to the magnitude of M over X.

With credit expansion - or perhaps without it - M will fail to decline 'sufficiently' and external equilibrium will be equivalent to the amount of the drop in X. Desequilibrium leads to monetary devaluation which in turn may restrict M and promote X in the short-run. In fact, devaluation leads to further price increases and, as we have seen, to a redistribution of income in favour of high income groups.*

But what interests us here is that a Latin American country is faced with the dilemma of choosing between monetary stability, which requires domestic activity to fall until over-all income has been reduced to a level compatible with exports; or an inflationary economy, through credit, budget deficits, wage and profit rises, and devaluations; or some peculiar import-substitution policy that makes growth compatible with stability. 'The solution to the problem, says Dr. Prebisch, calls for structural changes that will allow the economy to grow beyond the limit imposed by exports and to prevent, rather, than correct, the internal consequences of the fluctuations of exports (7)'.

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*Such redistribution, writes Dr. Prebisch, reduces the demand of the masses and boosts that of the high income groups. Apart from the social effects, this would not have an adverse effect on the total volume of internal deman if the investment coefficients of demand of the masses and the high-income groups were the same. But in practice they are not; the coefficient of th latter is usually higher. As the demand of imports of the high income grou tends to remain at the same level or even rise, depending on the intensity of inflation, the effect is reflected on the rest of imports. The fall in t consumption of the masses has depressive effects on the internal activity ar

(footnotes continues on following page)

In terms of the controversy it si important simply to recognise that structuralists and monetarists - once a stand on the behaviour of exports is made - agree to the fact that credit expansion and budget spending set-off inflation spiralling. Structuralists, however, do not believe that orthodox policies will bring stability and growth; and monetarists do.

Before going into the problem of statistical evidence for the foreign exchange bottleneck, it is convenient to summarise these somewhat dismembered comments. Professor Seers offers a small model that gathers the whole of the structuralist argument (8).

The symbols used are the following:

Y = GDP
I = Per capita product
X'= Total exports plus net capital inflows
X = Total exports
M = Total imports
P = Population
G = Purchases of manufactured consumer goods
I'= Minimum per capita product
Y'= Minimum tolerable GDP
m = Fraction of G imported
t = time

The author first assumes there is a steady rise in Y. This will produce structural changes in demand because income-elasticities of demand differ greatly between different commodities. (The population is growing fastly. The demonstration effect, urbanisation, consumer credit facilities, and changes in tastes.) Also income distribution will become more regressive because a large proportion of the population is unskilled and under-employed, and because the fiscal system is also regressive. Also, the manufacturing sector grows relatively faster than GDP. If this is so G can be expected to grow faster than income:

$$\frac{dG}{dt} \rangle \frac{dY}{dt}$$

If m is kept constant, total M of finished goods are mC. It follows that

$$\frac{d(mg)}{dt} \rangle \frac{dY}{dt}$$

(footnote continues from previous page)

* ...thereby facilitates the regressive adjustment of imports. As a result inflationary redistribution of income produces two opposite effects. By expanding investment it leads to maintain economic activity at a level higher than is justified by X. At the same time, however, the incentive that the relavant imports offer to the forces favoured by redistribution tends to limit the scope of the process. It is therefore not strange that inflation may be accompanied by inadequate use of production capacity or may result in a slow rate of growth, if no direct measures are taken to modify (over)

The inequality is likely to be considerate because manufactures are likely to amount to a significant proportion of M. The model also implies that domestic production of manufactured goods rises faster than GDP, so that the imports of intermediate and capital goods increase faster than GDP. But, since M consists of mostly manufactures and there is no reason to expect that other types of imports grow more slowly than GDP, total M will grow faster than GDP:

$$\frac{dM}{dt} \;) \; \frac{dY}{dt}$$

If trade is initially balanced, X equals M, national product will grow more slowly than X:

$$\frac{dY}{dt} \; (\; \frac{dX}{dt}$$

This is the condition for structural equilibrium. Whatever the adequate rate of growth it depends on X performance. If X grows fast enough the pattern of demand can be accomodated through M. But what is the adequate rate of growth? It depends mostly on the rate of growth of population and on the rising expectations. The latter can be defined as dI'/dt: the minimum long-run rate of growth of per capita output compatible with lack of social upheaval (poverty and unemployment for the author).

If $I' P = Y'$ is the minimum GDP tolerable, then:

$$\frac{dY'}{dt} = \frac{dP}{dt} + \frac{dI'}{dt}$$

But the condition for sodial equilibrium is that:

$$\frac{dY}{dt} \; (\; \frac{dY'}{dt}$$

So that the condition for full equilibrium, economical and social, is:

$$\frac{dx}{dt} \;) \; \frac{dP}{dt} + \frac{dI'}{dt}$$

Suppose then that the rate of X growth declines or slows down, thus the rate of economic growth will fall, and in the long run ceases to be politically tolerable.

There is a variation to the above formula if m declines. If the proportion of manufactures which is imported falls, then the following is possible:

$$\frac{dM}{dt} \; (\; \frac{dY}{dt} \text{ so that } \frac{dY}{dt} \;) \; \frac{dX}{dt}$$

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* (from previous two pages)
the composition of imports (8). But one is here already dealing with import-substitution.

Under what conditions can such a fall occur? If m is currently 'very high', the domestic product should be able to grow more rapidly than M, for a time. But, for technical reasons, there is a lower limit to m set by the requirements of various manufacturing processes. The actual market in any country for any product will be determined by the size of the population, the level of per capita income, and the degree of income distribution. These three variables therefore set minimum values to m, at which further industrialisation becomes very costly. This is, of course, the process and the cost of import-substitution industrialisation. To continue with professor Seer's model it is thus necessary to go superficially into the subject.

What happens then to industrialisation when it is forced beyond the trend permitted by X? As m falls, dI/dt and therefore dY'/dt continue to rise, because of the mentioned changes in the structure of demand. This pattern of demand causes the 'gap' to widen.

$$\frac{dG}{dt} \;) \; \frac{dY}{dt}$$

The problem becomes more severe in two ways. First, the immediate effect of accelerated industrialisation is to raise M, mainly capital goods. The initial savings of M through the fall in m is not as big as it seems because there will be new induced demands for imports of raw materials, intermediate products and spare parts. Second, import-substitution is a continous process. Each year a start is made on new industries, involving fresh requirements of imports of capital goods; and progress in substitution makes entering necessary into types of production which are more and more capital intensive. Infrastructural requirements will also raise the requirements of capital goods.

To the simple model now has to be added the inflationary pressure inherent to it. That is, the process of import-substitution is one of the structural causes of inflation. In these circumstances periodic devaluation is likely, since import and exchange controls are unlikely to be effective. Because a large proportion of the labour force is unskilled, the capital market is imperfectly competitive, and the supply of enterprise is inelastic, there will be difficulties in obtaining factors of production and factor costs per unit of output will be high; together with monopolistic practices, protection and so on. So that import substitutes are almost certain to be more expensive than the goods they replace. Through pressures in wages, the rise in costs will be general. Once the price rise gets under way, there will be the familiar cumulative tendencies.

It is true that some expansion in the supply of money, writes the structuralist author, is a necessary condition for the process to go very far (although one must expect some elasticity in velocity). A restrictive monetary policy would, however, only permit the necessary rate of growth to be combined with price stability if the prices rises were offset by price falls in other sectors. Since the upward pressures are strong this is very unlikely. The consequence of a strict monetary policy would be to keep Y linked to X; that is, price stability at the cost of almost complete dependence on exports.

The working of the model - to give the over-all vision of the argument - may be substantially modified by a rising inflow of foreign capital. Provided that this is growing faster than profit remittance, it enables M to grow faster than X and changes the equilibrium condition to:

$$\frac{dX'}{dt} \quad) \quad \frac{dP}{dt} = \frac{dI'}{dt}$$

where X' refers to X plus net capital inflows. Conversely, a change from an inflow to an outflow of capital or rising remittances of profits where foreign capital investment is constant aggravates the desequilibrium and inflation.

With this model in mind - which up to a point abstracts from the domestic causes of inflation - allow us to turn to the empirical evidence*.

(ii) Some empirical evidence and statistical indicators (1946 - 1965).

Going into the statistical test of the foreign exchange bottleneck argument is no simple matter. Because, at the very least, structuralists have in mind mixed economic indicators with reference to several economic problems. The argument very simplistically extends to the following interrelated economic problems: the behaviour of the foreign sector, price fluctuations, internal and external instability, and economic growth. For the purposes of this paper the foreign sector problems may be in themselves subdivided into export behaviour, import repercussions, and foreign capital. It is important to understand this in what follows. That is, one may start to work with the export sector and interpret its several parts with respect to external price fluctuations, domestic inflation, balance of payments desequilibrium and the growth of output or income. The structuralist argument, of course, implies that there is a definite and overall relationship between the external sector and the set of problems, presumably identified by statistical indicators and relationships. This is then the object of the present section.

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*ECLA, since the early 1950's has had case studies of external desequilibrium based on the above principles; see particularly the studies for Mexico, Brazil, and Argentina (9).

Moreover, it seems convenient to set the structuralist argument in its historical context. Because if one takes simply the economic indicators without considering the historical trend of Latin-American economies, much of the meaning in the structuralist model may be lost and hence the possibilities of interpreting diminish. Allow us then to briefly go over some well-known material, and add at the end our conclusions.

(1) The Historical Setting*

It was said in the introduction (Chapters 2 and 3) that the structuralist model - in so far as price instability and the foreign sector - starts to operate with the Great Crisis, the depression that followed and the post-war period. It is claimed, however, that the period that goes from the world's recuperation in the mid 1930's to the Korean War boom in the early 1950's somewhat obscures the structural imbalances the Latin-American countries were suffering. That is, when the world pulled out of the depression Latin America's exports rose and price inflationin the majority of cases slowed down to a halt (see Part I). Concentrating on our countries, this halt was very short lived: by the late 1930's and, more so, throughout the war period inflation proceeded steadily in all cases. Again the war is an exceptional period.

Despite the rise of exports during the War, imports lagged behind.** The Latin-American economy was inflationary (a more manageable inflation is assumed) in a different sense from that of the 1929-1965 trend. Commodities from Europe were difficult to obtain, but they could be replaced by imports from the United States until Pearl Harbour. Thereafter, the conversion of industry to a war economy in the United States and Britain, the shortage of shipping, the submarine warfare in the Atlantic and the Caribbean severely limited non-war supplies to and from the United States. The expansion of export income in Latin America was therefore much bigger than the rise in imports. A rise in foreign reserves induced an expansion of credit and public financing which stimulated investment and raised total demand considerably. Assumed then that one is on the ascending phase of the cycle. Moreover, internal activity was not only stimulated by an export surplus but by a greater liquidity in the banking system due to an inflow of wartime foreign capital. The result was, of course, a sharp increase in prices and growth. Certainly, measures were taken to limit the supply of money; but their success was very relative judging from the inflation of the period.

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*The comments that follow are mostly based on ECLA's El desequilibrio externo en el desarrollo económico de América Latina and in the articles of professor Seers and Dr. Sunkel (see the footnotes).

**The cost of the limited imports of Latin America rose, although not remarkably because of price controls in the United States.

Import-substitution industrialisation proceeded at a greater spped although the reason now was not a shortage of export revenues. Yet the difficulty to obtain imports reflected itself obviously on the demand for capital and intermediate goods, and other commodities. Capacity was usually stretched to a limit and infrastructural bottlenecks stretched the system. The war also revealed weakness in other sectors: in Mexico and Peru it was food, in Brazil fuels and steel, in Argentina energy. A favourable feature was the expansion of inter Latin-American trade, specially for the more industrialised Argentina, Brazil and Mexico.

In synthesis, here the origin of inflation - and growth! ? wat that imports were being reduced while exports increased. Serious bottlenecks appeared on the way, say in agricultura and infrastructure. This had to lead to an expansion of credit and income. The orthodox policies adopted were not very efficient, more than theoretically mistaken*. But if it is true that fiscal and monetary policies could check excess demand and reduce inflation, it is more unlikely that they could have solved supply problems.

The years following the armistice, like the 1920's, were prosperous in the majority of cases. Reserves were high and exports kept increasing. However, now all types of imports started to rise rapidly; so that the cyclical structuralist model starts to work. Liquidity and demand were buoyant, and the price movement was generally upwards. Although price structures were quite distorted by the end of the war (exchange rate overvaluation, price controls, certain shortages, etc.). Orthodox monetary policies were used in some of the countries to equilibrate the balance of payments and to keep prices under control. Increases in import prices, however, were transmitted throughout the whole economy. Also, since export prices and export quantum were expanding, there were instances where the supply of money could expand sufficiently to accomodate demand. This was a case of imported inflation which kept prices going up until 1948, when the acceleration of price increases in the United States diminished. The common factor in these countries was foreign exchange stability in the immediate post-war years.

In the countries which were following less orthodox policies - i.e. Argentina, Chile, Brazil - developments were different. The exchange position at the end of the war was somewhat illusory since part of the reserves were made up of private capital which was quickly repatriated, and the rise in world prices reduced these reserves. Nonetheless, for some years the foreign balance did not appear in a dangerous state. This impression allowed the supplyof money, budget deficits and imports to rise, while the possibilities of

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*One should remember the lack of experience of public administration in those days when the emphasis was on laissez-faire.

expanding and diversifying exports, were not widely explored. The most clear example of this is Argentina. Price and wage policies after 1945 had the effect of raising the purchasing power of wages in terms of traditional export products. Real wages rose in Argentina by 50% between 1945 and 1947, while export prices were prevented to follow the trend of world prices. Argentina, therefore, never quite recovered her markets for agricultural products, specially grains. Imports, on the other hand, rose and there was a decline in foreign reserves from 1,700 million dollars in 1946 to 700 million at the end of 1947. The increases in wages were higher than those in productivity, so that costs of productionrose. Public investment, although heavy and leading to budget deficits, did not out infrastructure bottlenecks. Hence prices averaged over 20% per annum in 1945-50.

Some countries did much better. Because their exports expanded more quickly and they made better use of the opportunity. Investment was high in Brazil, Colombia, Mexico and Uruguay and while GDP rose by about 5-6%, price rises were moderate, 5-11%. In these cases imports could be attained and internal supply problems wereeased. Still, in retrospect, it seems that the region failed to profit fully by the opportunity of an export boom in 1945-50.

Structuralists claim that with the stagnation of exports in the 1950's the real supply and demand imbalances of most of the Latin-American economies were revealed; in such a way that the model starts to operate in its down ward cyclical trend.* These strains, still, were late in making themselves felt. The Korean war and the recovery of West Germany help to explain it. But, by 1951, prices of primary products were on the fall again.** Broadly speaking, there was no further sustained rise in commodity prices after 1951. And, although the upward trend in import prices slowed down reflecting price stabilisation overseas, it did not stop. From this moment, it is argued, the DTT for Latin America was strongly felt. Thus the purchasing power of exports fell, inducing further inflation and eventually checking the rate of growth. The inflow of foreign capital, still, would have stimulated growth, just as an outflow would depress it.

Assume next that generalisations around the ten inflationary economies are valid. The following should be taken as structural assumptions, that will be later explored empirically in this section:

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*This point was discussed in the introduction, see also Dr. S. Sunkel (10).

**Prices of non ferrous metals, sugar, and coffee continued to rise until 1954.

1.- There was a shap decline in exports - more in value than in quantum - after the Korean Boom, say in 1953. Pricew continued to increase but at a higher rate. Nonetheless, income growth was pushed ahead by the authorities. By this time MST industrialisation was a deliberate policy; accompanied by a tight import structure plus a protectionist apparatus developed throughout 1930-50. Thus imports of intermediate products and some capital goods and foodstuffs were 'essential' and'had'to be increased or maintained. In terms of export receipts these imports could not be afforded.

2.- The immediate next stage was a running down of foreign reserves. This was accompanied by either devaluation or unrealistic exchange rates or controls. There was also a movement towards a contraction of huge foreign credits and stand-by allowances. These were destined to have a major impact on the composition of the balance of payments and on the future of imports. Still, this was a temporary way of financing them. But, in all cases, the decline in exports and the import demand was reflected on a growing deficit on current account.

3.- From the domestic point of view, the propagating factors of inflation, induced by the external sector, start to operate fully. The supply of money, budget deficits, mark-up pricing, and wages increase sharply and prices are pushed up further. There is a flight of domestic capital, and in some cases, foreign private investment becomes cautious. An important contradiction may start to operate. On the one hand, inflation may be discouraging savings and investment, and, on the other, it is a consequence of the policy measures adopted to stimulate supply for the domestic market and maintain the rate of income growth.

4.- Despite the above (specifically MST) increases in income fail to result in a real rate of grwoth. The agricultural, industrial and infrastructural sectors, despite the protection and incentives. tend to remain rather inelastic. At some point the balance of payments position grows so acute that imports cannot be increased or they even fall. Foreign loans cannot be repaid or, if they are met, the capacity to import is reduced in net terms.

5.- There is thus eventually inflation, accompanied by ~~deflation~~ A FALL in investment and real consumption (this may be a consequence of anti-inflationary policy making). Wages lag behing other incomes and there is a regressive distribution of income. Still, the deflation threatens industry, landowners and services, a competition for the stagnating shares of income is enhanced.

6.- The authorities try different 'crash policies' that may alternatively extend from severe stabilisation efforts to unorthodox reforms, but fail to contain the rate of inflation and the decline of growth in a cyclical sense.

7.- Political tensions mount up and contending urban workers, the civil service and high-income groups may drive the system to a coup d'état; where the likelihood of a successful military take-over increases.

8.- This structuralist argument, from the angle of this work, seems to apply best to Argentina. In this country the decline in export value and the foreign exchange crisis appeared as early as 1948. From that year the structural and propagating causes of inflation operated in a severe - fashion. External desequilibrium grew more severe; inflation became almost permanent= and the rate of growth fluctuated in adownward trend. The authorities tried unsuccessfully from 1952 to 1963 various and conflicting policies either to stabilise the economy or to maintain the rate of growth. The outcome of the period, besides the external and internal instability and the economic stagnation was the military take-over of 1964 (see the case study). Uruguay's case is also very close. Although here structuralists have to be cautious when they speak of MST industrialisation in the context of a small economy. Moreover, the short-term fluctuations in income, and the external sector are so violent that the trend analysis is difficult. Still, by the early 1960's Uruguay had a stagnating economy and external sector, galloping inflation, a chronic balance of payments disequilibrium, and mounting political tensions (1966-69).

9.- In Brazil and Colombia, the foreign exchange crisis was not felt until 1954. Moreover, despite the downward trend in exports and the difficulties of reducing imports, the real rate of growth continued to increase. In fact, Brazil was taken as an example of a high rate of growth compatible with inflation and external disequilibrium; and, in the view of some, stimulated by the former. But, by the late 1950's it was clear that the propagating causes of inflation were behaving violently and out of control; perhaps as a consequence of the policies to maintain the growth in income regardless of the external imbalance. The situation in Colombia, although much milder, was not really different. In both countries MST advanced enormously, but came to stand-still. Whether inflation itself, the policies followed, or the external sector are to blame is a controversial issue. On any event, the military take-over in Brazil in 1964 turned towards stabilisation, and the rate of growth continued to decline

10.- Peru's external disequilibrium has been less dramatic. However, of all these countries, Peru was the first to experience it in the immediate post-war period. In 1946-49 a stabilisation programme was carried out, which nonetheless culminated by 1950 with an 'early' military dictatorship. Throughout 1950-65 the export and import have been relatively very favourable, and there was high growth accompanied by mild inflation. But, there were also a serious external crisis in 1957-59 and minor ones in 1962 and 1966 in which the structuralist model then operates in the downward phase of the cycle (see case study).

11.- Contrary to 'conventional structuralism, from the experience of this work and in relative terms, the Chilean case does not fit very well into the foreign sector structuralist model. This is not to say that Chile has not had structural bottlenecks; some evidence of this was seen in the last section and, moreover, the test of the monetarist assumptions was not convincing. It is obvious that Chile has had a severe and chronic inflation - where structural and propagating factors have been at work - a slack rate of growth, a chronic balance of payments deficit and frequent devaluations. But, allowing for sharp fluctuations, the trend in export receipts and in imports has been relatively favourable. In such a way that the external disequilibrium should have been milder than it in fact was, and hence growth faster and inflation milder (at least in the simplification of the structuralist model). In other words MST has been less present in Chile, but nonetheless it has advanced, and, with some export revenue and large foreign credits, its presence should have led to a faster rate of growth in income. In very simple terms it may be unwarranted to blame the trend in exports for inflation and slow growth. It is convenient to look into the trend in imports, and its structure; into the behaviour of industry and agriculture, into the propagating factors; as well as into the different stabilisation measures that have been tried unsuccessfully. It would thus seem, that if structuralists have a case in Chile, they have it more in terms of the domestic sector and the policies adopted towards the 'whole' of the external sector, rather than in export trends particularly. Another distinction in Chile is the persistence of the democratic institutions of the system (see also the case study).

12.- Mexico and Ecuador, with a mild inflation, stand at extreme points in the structuralist model in terms of the forced industrialisation. Yet both can be interpreted in structural terms with respect to their external desequilibrium. In Mexico, the external imbalance was also felt early: there was a decline in exports, devaluation, a fall in the rate of growth, and price increases first in 1948-49 and later in 1953-55.

Moreover, for the greater part of 1945-1959 one may apply the structuralist model with emphasis on the downward phase of the cycles. However, from some point in the late 1950's to 1965 the external and domestic situation became much more favourable: in general terms, export and import trends have been more stable and have grown noticeably, inflation was almost abolished, and the rate of growth was high. In the situation MST was more easy to accomplish; the propagating factors could be controlled with prudent measures; and, at the same time structuralists would emphasise, there was scope for reforms in the domestic structure. Still, some would emphasise that external equilibrium has been precarious - judging by the chronic deficit on current account. Mexico has relied heavily on tourism, border transactions, and foreign credits, which with a cyclical upswing have been repaid more easily. Still, the growing divergence between export receipts and import needs, plus a heavy foreign debt repayment schedule, is a matter of concern. Moreover, the peaceful political set-up has shown signs of strain in the late 1960's. Ecuador in the period of this work, has had a booming banana market and has not attempted serious MST. But, at the points where there has been strain in the external equilibrium, devaluation and other propagating factors, although very moderately, have been at work.

13.- Bolivia and Paraguay, as it has been said, are not really cases of MST, but nonetheless they have experienced severe inflation. In fact, Paraguay's severe inflation and slow growth in the 1950's was accompanied by a fall in exports, external desequilibrium, devaluation and the rest of the immediate causes of inflation. When inflation was greatly reduced in the 1960's the external sector recovered. It should also be remembered the persistence of a strong dictatorship. In a sense, Bolivia was the Paraguayan opposite. The almost hyper-inflation and fall in growth during the 1950's was accompanied by a socialist revolution. The period, nonetheless, is characterised among other things, by an acute external disequilibrium where exports toppled down and imports soared-up. The over-all picture was one of galloping inflation, acute external disequilibrium, and negative growth.

How much these generalisation on the structuralist model fits into some empirical evidence is the next point.

As it has been said for structuralists the most important common feature of the Latin-American countries is the very great dependence of their growth and economic stability on external economic events.* This is not so much due to exports

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*External events which are sometimes beyond their influence, although the relevance of domestic problems and policies should by no means be underestimated.

being a high porportion of GNP (see Table I). Rather, it is due to the fact that export production is concentrated on a very few primary products (see Table II, previous section). Colombia derives about 15% of GNP from exports and about 66% of it from coffee alone. Brazil derives a much smaller proportion of GDP from coffee (about 5%), but nonetheless coffee comprises over 50% of the value of its exports. The economy in Chile is based very substantially on the production of copper, not so much because copper production is a high percentage of GDP or even because copper sales form 50% of total exports, but mainly because a substantial part of government revenue is derived from the source. While in Boliviathe value of the export sector is higher and tin production alone accounts for more than 60% of the exports. The exports of Argentina, Peru, Uruguay and Mexico are more diversified. Even so, over 90% of Argentina's exports stem from the agricultural and livestock sector; the figure is similar for Uruguay; Mexico derives more than 60% of its exports from agriculture and mining; and, Peru, although more diversified, derives the almost totality of its exports from agriculture, mining and fishery.

When a country's economy is geared so heavily to the production and export of one or very few primary products, then its long-term rate of economic growth and its short-term monetary stability depends rather crucially on world demand for these products. As it was said, a country may be fortunate in enjoying a long run expansion in world demand for its major export products, so that prices show a persistent tendency to rise. Real income would then rise faster than real output and the country could increase its capital formation. Besides, through export production and revenues, investment in industry could also be induced through multiplier effects. Moreover, provided the volume of exports does not fall as prices rise, the capacity to import would increase; and this would obviously facilitate investment. The fact may well start a mild inflation throughout the economy, but one that, since real income is growing, may be kept under control. Structuralists, on the other hand, say that amore serious form of monetary instability is introduced into the economy if export prices fluctuate or show a persistent downward trend. Moreover, and mainly depending on what happens to imports and industrialisation, inflation may be accompanied by economic stagnation or growth, somewhat independently from the mere behaviour of exports. Thus the question for an ideal structuralist is whether the rate of growth, the rate of inflation, the movement in export values (and the TT), the behaviour of imports, and import-substitution industrialisation are significantly related. The main problem here is that short-term policies - devaluation and measures with respect to imports and capital movements - will alter the trends in the external bottleneck.

TABLE I

Exports as a percentage of GNP, 1950-1965.

Country	1950	1953	1958	1960	1965
Argentina	9	7	9	11	9
Brazil	12	8	7	7	9[a]
Chile	11	9	10	12	13
Colombia	14	15	19	15	13
Peru	16	19	20	24	18[a]
Uruguay	18	8[b]	12	14	13[a]
Mexico	17	14	12	11	10
Ecuador	20	19	19	18	17
Bolivia	18	16[b]	16	16	21
Paraguay	16	12	15	18	21[a]

Source: Statistical yearbook, United Nations, New York.
a) 1968, b) 1955

(2) Relative Fluctuations in Exports and Imports.

The first thing to see is what has been the tendency of exports and imports, with respect to the alleged price fluctuations. It should be distinguished, however, that structuralists are more interested in the long-run trend. Because it may very well be possible that a country with sharp secular fluctuations in exports shows greater instability that one where exports are increasing secularly, although fluctuating widely in the short-run. The Monetary Commission for Latin America (CEMLA) has calculated three coefficients both for imports and exports that measure instability in the foreign trade sector for the period 1948-1963 (see Table II).

The instability coefficient (I) shows the fluctuations of exports and imports in the long run; the higher it is the more the instability. The coefficient of growth (B) shows the growth of exports and imports in time; the closer it is to zero - or to negative - the higher the stagnation of exports and imports. The coefficient of correlation (R) measures the relationship between esports and imports and time. The comparison between the three coefficients, following the structuralist argument would enable one to measure the instability in the foreign trade sector as an indication of the instability in cincome and prices.

TABLE II

Measurement of Value Instability (I). Growth (B) and Correlation of Experts (fob) with imports (cif) with time (r) 1948–63

Country	EXPORTS			IMPORTS		
	I	B	r	I	B	r
Argentina	0.138	9.5	0.272	0.157	9.00	0.195
Brazil	0.110	-8.4	-0.231	0.177	-1.00	0.018
Chile	0.105	15.2	0.818	0.101	22.10	0.917
Colombia	0.054	1.0	0.052	0.218	8.70	0.331
Peru	0.140	25.9	0.929	0.131	3 6.8	0.890
Uruguay	0.197	-7.9	-0.682	-	-	-
Mexico	0.083	29.0	0.901.	0.091	47.80	0.921
Ecuador	0.109	6.9	0.921	0.160	4.37	0.732
Bolivia	0.173	-3.4	-0.757	0.155	0.11	0.037
Paraguay	0.093	0.0	-0.006	-	-	-

Source: Centro de Estudios Monetarios Latinoamericanos. Mexico. 1965; and International Financial Statistics

Following these indicators (for 1948-1963), the countries selected may be divided into two groups: those where the external trends, in exports and in imports were relatively favourable; and those whose external sector behaved very disfavourably. It was interesting to see that this simple division proved relevant as the argument was developed and different indicators used.

1.- In the first group - Mexico, Chile, Peru, and Ecuador - the three coefficients showed better tendencies. The best case is the one of Mexico. The instability coefficients for both exports and imports were very low; the growth in exports and imports was the best for the group, although the latter grew at almost the double than the former; and the correlation with time was almost perfect (0.9). The country moreover had a very fast growth and mild inflation. Structuralists will thus argue with reason that the better the trend and the stability of exports and imports the higher the rate of growth and domestic stability. Peru and Chile also have considerable growth in imports and exports and high time correlations, although the coefficient of instability was higher. In Peru, structuralists will say, that the growth in the external variables and its instability was reflected in a high rate of growth in income, but in a mild inflation. Chile, however, appears to be an exception. From here onwards it will be seen that, despite growth in the external sector, allowing for considerable instability, inflation was very high and growth very poor. In Ecuador the rates of growth in exports and specially in imports were low; and instability high in imports. In this situation there was mild growth and inflation.

2.- In the second group - Argentina, Brazil, Colombia, Uruguay, Bolivia and Paraguay - the behaviour of the external variables was poor. The instability coefficients were high in all cases, except in Colombia (0.05) and Paraguay (0.09). But this was because exports stagnated (1.0 and 0.0 respectively). Thus in the rest either exports fell - Brazil, Uruguay and Bolivia - or increased very slightly - Argentina. Moreover, the correlation with time was not present, thus indicating fluctuations in time.*

3.- What can be easily concluded from these coefficients is that in the second group all countries were very inflationary (perhaps with the exception of Colombia) while in the first all had much milder inflations (the exception of Chile, however, is very conspicuous). With respect to the rate of growth the problem is more complex.

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*For 1964-65 the picture for the countries selected remains the same with very small modifications. There is a slight improvement in Brazil's exports and a good improvement in Paraguay's exports and imports. Imports in Argentina and Brazil, on the other hand, have declined steeply. In the first group the tendencies have remained favourable (see Table III).

It is true that in the first group, all countries had rather good rates of output growth, but Chile is an exception. In the second, growth in GNP was low in Argentina, Uruguay, Paraguay, and Bolivia, but average in Colombia and high in Brazil. For simple purposes one could say that the structuralist argument of an external bottleneck and low growth and high inflation is present, but that Colombia is a border case and Brazil and Chile exceptions. The problem, as we shall see below, is more complex.

Having established that high instability or poor performance in the external sector may lead to a rapid rate of inflation, the problem is how to establish a meaningful relationship between both variables. That is, what is the statistical relation between the external bottleneck, if any, and the rate of inflation?.

For the purpose of arriving at statistical indicators of the relation between trends in the external sector and domestic prices implicit in the structuralist theory, it is convenient to assume what follows:

1.- Over the long run there is a decline, stagnation or slow growth in exports (One that is incompatible with structural equilibrium, following Dr. Prebisch and professor Seers). It follows that income will grow faster than exports, for a time (with respect to general instability much will depend on alternative policies that encourage growth or stability).

2.- This leads to MST industrialisation.* In other words, income will grow faster than exports in the form of MST. This is reflected in the structure and trends of imports. MST will mean that relatively fewer consumer dufables and non-durables are imported and more intermediate and capital goods - or foodstuffs if that is the case - will be purchased from abroad. Hence imports become a function of income. As the process advanced and simple substitution is accomplished, imports purchases will become a derived demand of investment. Thus income depends on industrialisation and industrialisation on imports. The result may be a rigid import schedule in terms of income growth. The process may present two initial stages:

a) Imports increase fastly; so that there is an external imbalance reflected first on current account and later on capital account. This will presumably result in the growth of income and in domestic instability. But, up to a point and since income is growing, inflation may be easier to handle.

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*In a formal sense this section abstracts from the MST process. Its theoretical and empirical consequences are examined in the following section (C).

b) The external disequilibrium may eventually bring a reduction in imports. This reduction will not only halt income growth but since the incompatibility or gap between exports and income has been evidenced - may result in further inflation and the persistence of the external disequilibrium reflected in both components of the balance of payments.

3.- Within the context of the initial disequilibrium, at a later stage export may recover - increase - and imports may be reduced and the growth in income decline or stagnate, but the persistence of a 'gap' still reflects itself in an external imbalance. When this stage is reached a decline in the trend of income growth will be accompanied by a more serious inflationary spiral.

4.- The main problem in this analysis is that the trends in exports, imports, income, industrialisation, inflation, and external disequilibrium will be effected by short-term policy measures. These policies may not have the same objectives and furthermore they may change the direction of the process in the short-term, although our implication here is that the long-run trend persists. That is, the results in external disequilibrium and inflation as reflected in the external sector variables will be modified by exchange rate measures; the protective or liberalised policies adopted towards exports, imports and foreign exchange; the encouragement or halting of MST; and the monetary, fiscal, and incomes' policies followed. For example, at some point, the external disequilibrium will be met by devaluation and an inflow of foreign loans and stand-by credits and restrictive domestic policies. Thus imports and income growth will be reduced; exports may increase, but still remain below an initial lead; and, the rate of inflation may be reduced. But, for structuralists, this is unlikely or, on any event, short-lived; it may well happen that inflation is not contained, the growth in income stagnates, and the external bottleneck persists. Hence what one wants to substantiate is whether the long-run trends in unbalanced external variables - despite the short-term measures - are significantly related to domestic prices.

5.- It is important to see whether this is a self-defeating exercise.* Not only alternative short-run measures stand in the way, butlags are bound to be very present and their impact difficult to account for. In very simplistic terms - how long does it take for an external imbalance, however measured, to result in a rise in prices? Also in simple terms and in the relevant

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*The short-comings in these 'heroic' simplifications will be met in a modest way in the case studies, which account for short-term variations and policies.

cases three assumptions will be tried: an unlagged relation (P), a lagged relation of one year (P+1), and a further one for two years (+2).

6.- The indicators that will be used, under the above assumptions, are the following:

a) the comparison of the trends in exports, imports, GNP, and prices.

b) Considerations about the quantum in exports and imports.

c) The relationship between the capacity to import (CM) total imports of goods and servies (MGS), and prices (P).

d) The significance of a chronic deficit on current account (B).

e) The over-all deficit of the balance of payments as seen on capital account (B).

(3) GDP, Exports, Imports, and the Cost of Living (See Tables III and IV).

In the simple comparison between these four variables one should be able to find some evidence of the structuralist argument on a foreign exchange bottleneck, external disequilibrium, and inflation. The conditions for equilibrium in the model were that exports grow faster than income or that imports lag behind income growth.* There would be price disequilibrium, on the other hand, if two other trends are prevalent. First, if exports lag behind income and if imports grow for a time much faster than exports and are later forced down together with income. This would not only create a chronic tendency towards an external imbalance but a kind of domestic inflation particularly difficult to contain. Second, when exports tend to increase moderatly and especially when the rate of growth of income is maintained high, imports may rise very much and produce a general imbalance. Inflation in this case, however, should be easier to contain although the external imbalance may be chronic.

Stated in these terms the structuralist argument is generally present in the inflationary economies, although not in an obvious way. Naturally each country, for multiple reasons, has had its peculiarities. Moreover, as it was said, short-run policies alter the simple trend one would have expected**. Still, the next step is to go into the argument. The countries are divided, as it was done initially, into those with the worse trends in rhe external sector and prices - although, Bolivia and Paraguay will be signaled out as cases where MST is very weak - and those with relatively more favourable

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*The general case of the relatively stable Latin-American economies (See Part I, Chapter 3).

**An important determinant would be the 'degree' of MST a country experiences (income) plus the effects of the following main policies: exchange rate rate measures, (devaluation), contraction or prepayment of foreign debts

(continued in following page)

TABLE III

Index Series for Real GDP, Exports (X), Imports (M) and the Cost of Living (P)[a)]

1946–1965

Country		1946	1947	1948	1949	1950	1851	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina	GDP	–	–	–	–	75	–	–	78	–	87	88	93	100	94	102	109	107	103	111	120
	X	118	162	164	106	119	118	70	113	103	93	94	98	100	102	109	97	122	137	142	150
	M	–	109	127	96	78	120	96	78	79	95	89	106	100	81	101	118	110	80	87	97
	P	–	–	14	18	24	32	44	46	48	54	61	76	100	219	272	309	395	491	600	771
Brazil	G DP	–	–	–	–	65	–	–	75	–	86	88	94	100	107	114	123	129	131	136	142
	X	78	91	95	88	109	142	114	124	126	114	119	108	100	103	102	113	98	113	115	126
	M	50	90	83	82	80	147	147	97	120	97	91	110	100	102	108	108	109	110	93	81
	P	–	–	25	25	26	28	35	42	50	60	73	87	100	137	185	256	390	684	1270	2050
Chile	GDP	–	–	–	–	77	–	–	89	–	85	90	99	100	103	100	108	116	119	125	129
	X	–	86	94	75	84	104	130	95	112	134	134	111	100	124	132	122	133	135	162	188
	M	–	66	60	72	60	85	91	84	82	93	92	105	100	100	125	147	141	135	146	146
	P	–	–	5	6	7	9	11	13	23	40	63	79	100	139	155	167	190	274	400	512
Colombia	GDP	–	–	–	–	71	–	–	83	–	92	95	98	100	107	111	116	122	126	134	138
	X	65	60	59	70	86	101	103	130	143	126	130	111	100	103	101	95	101	97	119	117
	M	58	91	81	66	91	105	104	136	168	167	164	120	100	104	130	139	135	127	147	113
	P	–	–	45	48	58	63	61	66	72	71	76	87	100	107	111	121	124	164	192	199
Peru	GDP	–	–	–	–	72	–	–	80	–	92	96	97	100	104	113	122	133	131	149	–
	X	–	54	51	55	68	88	85	79	88	96	110	114	100	106	152	174	190	190	234	234
	M	–	43	43	43	43	65	107	76	66	79	103	120	100	83	96	124	141	154	154	192
	P	–	–	45	51	58	64	68	74	78	82	86	93	100	113	122	131	138	148	164	191

Country		1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	11956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Uruguay	GDP	-	-	-	-	-	-	-	-	-	101	103	104	100	97	101	104	101	100	102	-
	X	110	117	129	138	160	170	150	194	179	132	152	92	100	71	93	126	110	119	128	137
	M	97	142	133	121	132	204	160	128	182	151	141	168	100	105	161	136	153	117	131	100
	P	-	-	41	43	41	47	54	57	64	69	74	85	100	140	194	237	263	317	454	710
Mexico	GDP	-	-	-	-	61	-	-	69	-	83	88	95	100	103	111	115	121	128	141	149
	X	-	63	63	62	71	89	88	80	89	109	112	98	100	99	103	112	125	131	142	154
	M	-	63	53	47	52	77	73	70	70	77	94	102	100	88	104	100	101	109	131	136
	P	-	-	47	50	52	59	68	66	70	81	84	89	100	102	108	109	110	111	114	118
Bolivia	GDP	-	-	-	-	-	-	-	-	-	-	-	-	100	100	104	107	113	120	126	132
	X	117	129	178	160	149	240	223	179	146	159	170	151	100	121	105	166	119	129	178	174
	M	65	74	87	98	71	109	118	86	83	103	106	114	100	82	87	92	116	124	123	160
	P	-	-	.9	1	1	1	2	4	9	16	46	97	100	120	134	144	152	151	167	172
Ecuador	GDP	-	-	-	-	70	-	-	81	-	90	93	97	100	105	112	115	121	124	133	138
	X	29	38	40	30	56	53	77	69	94	86	87	100	100	105	108	95	107	111	111	-
	M	33	48	54	49	44	56	62	67	107	102	97	95	100	93	108	107	91	120	158	163
	P	-	-	-	-	85	95	98	98	101	103	98	98	100	100	102	106	109	115	120	123
Paraguay	GDP	-	-	-	-	78	-	-	81	-	90	89	95	100	100	101	107	113	115	119	126
	X	-	-	86	79	103	112	94	74	103	112	109	109	100	106	109	129	118	118	135	176
	M	116	-	59	55	45	61	75	70	77	70	84	89	100	86	105	111	93	93	102	116
	P	-	-	-	-	-	16	26	45	54	67	81	94	100	110	119	141	143	146	148	154

a) Source: Estimates from Yearbook of International Trade Statistics, UN, 1964 and 1965,-Balance of Payments Yearbook, IMF, 1950 to 1967 and Statistical Yearbook, UN, 1966 (relevant figures originally in millions of USA dollars).

TABLE IV

Annual Changes in GNP, Exports (X), Imports (M), and Prices (P), 1947 - 1965.

(percentages)

Country		1947	1948	1949	1950	1950-53	1953-55	1955-56	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina	GNP	-	-	-	-	4.0	11.5	1.1	5.7	7.5	-6.0	8.5	6.9	-3.3	-5.2	8.2	7.8
	X	-	1	-35	12	-5	-18	1	4	2	2	7	11	26	12	4	6
	M	-	17	24	-19	0	21	-6	19	-6	-19	25	17	-7	-27	9	11
	P	-	14	29	33	91	17	13	25	32	114	27	14	38	24	22	29
Brazil	G NP	-	-	-	-	15	15	2.3	6.7	6.3	7.0	6.5	7.8	6.1	1.6	1.4	3.8
	X	17	4	-7	24	14	-8	4	11	-7	3	-1	11	-13	15	2	11
	M	80	-8	-1	-2	21	0	-6	21	-9	2	6	0	1	1	-15	-13
	P	19	18	10	4	62	42	22	19	15	37	35	38	52	75	85	61
Chile	GNP	-	-	-	-	16	-4	5.9	10	1	3	-3	8	6.5	1.7	4.4	4.1
	X	-	12	-21	12	13	41	0	-17	-10	24	6	8	9	1.5	20	16
	M	-	-10	20	-17	40	10	-1	14	-5	0	25	18	-4	-4	8	0
	P	-	18	20	17	71	200	58	25	27	39	12	8	14	45	46	28
Colombia	GNP	-	-	-	-	17	11	3.3	3.2	2.0	7.0	3.7	4.5	5.0	3.5	4.5	3.2
	X	-8	-2	19	22	51	-3	3	-15	-10	3	-2	-6	6	-4	23	-2
	M	57	-11	-19	38	49	23	-2	-17	-17	4	25	7	-3	-6	16	-23
	P	18	16	7	21	13	14	7	14	7	4	6	9	13	32	11	4
Peru	GNP	-	-	-	-	11	15	4	1	3	4	8.6	8.0	7.5	3.7	5.5	5.8
	X	-	-6	8	24	16	22	15	4	-12	6	43	15	9	0	23	0
	M	-	0	0	0	89	4	17	-20	-20	-17	16	30	14	9	0	25
	P	-	30	13	14	27	10	5	8	8	13	8	7	5	7	8	16
Uruguay	GNP	-	-	-	-	-	20	1.0	-4.0	-3.0	4	3	-2.2	-1.0	1 .1	1.2	
	X	6	10	7	60	22	-22	15	-39	8	-29	31	35	-13	8	8	7
	M	46	-6	-11	9	-3	17	-7	19	-40	5	53	-16	13	-24	12	-2
	P	15	2	5	-4.7	40	21		15	18	40	39	22	11	21	43	56

Country	1947	1948	1949	1950	1850-3	1953-5	1955-6	1957	1958	1959	1960	1961	1962	1963	1964	1965
Mexico GNP	-	-	-	-	13	20	6	8	5.3	3.0	7.8	3.6	5.0	6.0	10.0	5.4
X	-	0	-2	15	13	40	3	-12	2	-1	4	9	12	5	8	8
M	-	-14	-11	11	35	10	22	9	-2	-12	18	-4	1	8	20	4
P	-	6	6	4	27	22	4	6	12	2	6	1	1	1	3	4
EcuadorGNP	-	-	-	-	15.7	11.1	3.3	4.3	3.1	5.0	6.7	2.7	4.6	3.3	4.5	3.3
X	14	21	-25	87	23	25	1	15	0	5	3	-11	13	4	0	-
M	45	13	-9	-10	52	52	-5	-2	5	-7	16	-1	-15	32	32	3
P	14	7	1	0	4	5	-5	0	2	0	3	2	4	3	6	3
Bolivia GNP	-	-	-	-	-	-	-	-	-	0	4	3	4.1	6.2	6.2	5.5
X	10	38	-10	-7	-2	-12	7	-11	-44	21	-13	5	3	8	38	-2
M	-	11	0	0	21	20	116	3	20	-12	7	6	-1	11	3	8
P	-	27	11	100	300	300	181	116	3	20	12	8	6	-1	11	6
ParaguayGNP	-	-	-	-	3.8	11.1	-1.0	6.7	5.2	0	1.0	6.0	5.6	1.8	3.5	5.9
X	-	-	-7	30	-28	51	-3	0	-8	6	3	18	-9	0	14	30
M	-	-	-7	-18	55	0	20	6	12	-14	22	6	-14	0	10	14
P	-	-	35	-	-	50	21	16	6	10	8	18	1	2	1	4

Sources: See Table III

trends - although here Chile will have to be placed in a special category - But with respect to the external sector - and other things being equal - the first group is formed by Argentina, Brazil, Colombia, Uruguay, and Bolivia and Paraguay; and, the second, by Mexico, Peru, Ecuador and Chile:

1.- In Argentina exports declined from a peak in 1948 to a stagnant level in 1954-61, and thereafter recovered mildly although the initial point was not reached (see Table III again). Moreover, the peak was lower to that of the war years, and this in its turn lower to the pre-1930 level. Imports also had their peak in 1948 but, unlike exports, they fluctuated sharply downward reaching a minimum in 1963-65; their fluctuations being a result of short-term measures, Thus the period that goes from 1948 to 1965 is one where there is an export bottleneck, accompanied by chronic inflation and increasing shortage of imports. The disequilibria between exports, imports and growth of output is better seen on Table IV. It may be seen that in the majority of years percentual changes in exports lagged behind the growth in income; and that imports either came crashing down or increased outstripping exports. Inflation thus became a permanent feature of the system.

The cases of Brazil and Colombia are rather similar, the former being a milder version of the latter. Exports and imports increased until some point in the mid-1950's decreased very substantially, and in 1965 they were well below their point of decline. Imports tended to decrease more sharply in Brazil because of the scope MST could continued to assume in such a large economy. Prices, moreover, increased sharply in Brazil after the decline in exports and tended to maintain an average the same rate in Colombia. Since both were growing economies during the period, the gap between exports and output becomes very noticeably from 1958 onwards. From 1953 relative changes in exports except in one or two years, fell behind increases in output; while changes in imports tended to be negative.

Uruguay's annual fluctuations have been so bewildering that they obscure the disequilibrium. Moreover, the downward trends in exports and imports, take place in the context of a stagnant economy. In fact, exports and imports increased sharply until at least 1954, and afterwards fluctuated downward. Inflation has been a permanent feature of the system, but it can be seen that it accelerated fastly from 1957 on, precisely when the rate of growth in GDP declined. Annual changes in the other three variables show the instability they suffered.

** ..(the capacity to import) liberalisation or protectionism of external trade (tariffs and controls); and fiscal measures (taxes on imports and exports). This will become obvious in what follows.

2.- In Bolivia and Paraguay the acute inflation of the 1950's was also accompanied by a decline in exports. But since in these countries MST is very modest - and hence export performance determines income growth substantially - imports could be more easily reduced in such a way as to affect consumption. Price stability would be more feasible the moment exports increased again and provided imports were cut substantially. In Bolivia exports and imports increased until the 1952 revolution and inflation was more moderate. But after 1952 and at least until 1963 (when they started to recuperate) there was a sharp fall in exports and galloping inflation. Since imports did not decline the external disequilibrium was enhanced and in this sense Bolivia was 'living beyond her means'. From 1958 onwards, when exports started to recover and imports were reduced, inflation was greatly reduced and income growth since it does not depend vitally on imports, was fast. This should not be taken to mean that other factors - ile. foreign free aid and domestic measures - did not also contribute to stabilisation. The Paraguayan casa is less clear, although not different, since the trends in the variables have not been so sharp. Still, exports probably increased until 1951 and thereafter fell and stagnated until 1961; imports, on the other hand, continued to increase until 1961 and fell thereafter, It is by no coincidence that inflation was severe throughout the 1950's and was put under dontrol in 1961. Moreover, annual changes in exports lagged behind output- despite the fact that income was stagnant during the period - and imports increased sharply in some years.

3.- In Peru, Mexico, and Ecuador, the trends in the variables have been more favourable and inflation much more mild than in the former group. Still, there are significant features that should be noticed.In Peru, exports and imports have expanded at very considerable rates from 1949 to 1965. Still, they have suffered setbacks in 1952-53 and 1958059, and were stagnant before 1949. These periods experienced a faster rate of inflation on average. However, the tendency in the majority of years has been for exports to increase faster than a fast rate of growth in GDP~ and increases in imports have been large. Thus, the inflation was not only more moderate but more susceptible of control Its persistence, allowing for the cyclical variations in the variables, may be taken as evidence that domestic inflation was perhaps relatively more important. In Mexico the external trends have been less favourable, but still favourable if the period is taken as a whole. Moreover inflation has been greatly reduced and income has grown fastly from 1960 onwards. It may be questioned, however, if this is a result of exports? Exports were stagnant in 1947-49 and again in 1952-54 and 1957-59 and thereafter rose very substantially. In simple terms the periods of stagnation

were much more inflationary and 1960-65 was a period of stability. Imports, on the other hand, were rather stagnant until 1955 and thereafter the trend was clearly upwards, although fluctuations were sharp. Something that may be a consequence of the enforced MST and of the scope of the process can assume in Mexico. Still, the trend in export growth has been barely above the growth of GDP. In fact, in some years it has fallen behind and in many yearly variations output outstrips exports. Nonetheless, there was a movement towards price stability and thus the idea that other factors than exports (although their over-all trend is favourable) contributed to stability. Ecuador, the country with the mildest inflation in the group, experienced very fast growth in exports until 1957 and thereafter a milder growth. Thus imports followed closely the pattern set by export, perhaps with a year lag. But, it should be noticed that in 1963-1964, when exports stagnated and imports increased sharply, prices also increased.

4.- Chile appears to be a very peculiar case. Because in terms of the simple structuralist argument, inflation should have been milder and growth faster than they were. In fact, Chile had a stagnant economy and severe chronic inflation. From 1947 to 1965, however, exports increased 100% and imports 80%. Thus, over the long run and comparing to the rest of the countries, the export bottleneck is not present. But what is true, is that in cyclical terms Chile's exports - and more so its imports - have suffered frequent and serious set-backs (in 1949-50, 1953-59, 1957-1958 and 1961). Thus over the short-run a better argument could be made for instability in the external sector. Still, over the whole period and 'so far' it would appear that relatively speaking inflation as induded by the export trend should have been much milder, especially when the low rate of income growth is considered. In at least half of the years in the period exports increased faster than income.

(4) <u>The quantum of exports (QX) and imports</u> (QM)

The structuralist argument implies that the decline and instability in the value of exports is not necessarily connected with the supply volume of exports, but with fluctuations in prices and demand. In fact, the volume of exports may increase but since there may be a deterioration of the terms of trade (DTT), where the prices for imports behave more favourably than those of exports of primary products, this may be accompanied by a fall in export value. ECLA's estimates indicate a DTT in all of the countries studied, except for Chile and Bolivia which are the main mineral exporters of the group. However this does not tell much since both countries with fast inflation -i.e. Argentina and Brazil - and countries with a mild one - i.e. Mexico and Ecuador - had DTT. Moreover, Chile's external terms of trade have improved and inflation persisted.

External Terms of Trade
(1950=100)

Country	1950-52	1954-56	1960-62	1963	1964
Argentina	94	75	81	87	92
Brazil	97	98	73	69	78
Chile	108	118	111	111	112
Colombia	93	100	72	67	77
Peru	109	100	72	77	79
Uruguay	99	88	84	84	88
Mexico	109	90	77	86	90
Bolivia	118	114	130	168	181
Ecuador	95	94	74	67	67
Paraguay	115	118	75	77	86

Source: Economic Survey of Latin America, 1965, N.Y.

It is convenient to examine QX considering the terms of trade, and also QM with respect to domestic prices (See Table V). The countries are again divided into those with less favourable trends in the external variables and those with more favourable trends.

1.- In Argentina, Brazil, and Colombia, allowing for yearly fluctuations, QX has tended to expand, presumably to compensate for the fall in value of exports. In Uruguay, however, QX fell by 28% between 1953 and 1965, but increased by 20% if 1948 and 1965 are taken as reference. In Bolivia, on the contrary, QX fell pari passu with the improvement in the TT; and, nonetheless the economy moved from acute instability to relative stability by 1961. Paraguay's stagnant export value was accompanied by an 81% increase in QX from 1948 to 1965. In the countries with more favourable trends in export value and a milder inflation - Mexico, Peru and Ecuador - which also had DTT, QX expanded rather considerably. On the other hand, Chile with improving terms of trade had to expand QX only in moderate terms. Thus it would appear that all countries, except for Bolivia and Chile, had to make supply efforts to meet stagnant external markets and to compensate for the existence of the danger of an inflationary export bottleneck.

2.- The quantum of imports has fluctuated widely, presumably as a result of domestic policies. Still, in the inflationary countries with a stagnant export trade QM has either tended to stagnate - as in Brazil from 1954 and in Argentina from 1951 - or fallen sharply - as in Colombia and Uruguay. On the whole, in the countries with expanding exports - Chile, Peru, Mexico and

TABLE V

Indices for the Quantum of Exports (X), Imports (M), and the Cost of Living (P)
(1946-65)

Country		1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina	QX	-	-	90	68	101	74	50	83	90	79	86	93	100	102	102	92	128	128	125	136
	P	-	-	14	29	39	33	38	5	4	13	13	35	32	114	27	14	38	24	22	29
	QM	-	-	-	-	-	100	73	57	77	92	89	95	100	86	106	128	116	89	94	107
Brazil	QX	139	132	136	122	166	114	94	104	90	104	113	104	100	128	125	138	129	149	132	151
	P	15	19	18	10	4	8	25	20	19	20	22	19	15	37	35	38	52	75	85	61
	QM	34	48	43	50	61	93	90	69	98	87	72	100	100	110	111	110	110	112	91	77
Chile	QX	93	93	99	89	87	94	97	64	108	102	98	102	100	116	107	112	120	122	133	130
	P	19	23	18	20	17	29	22	18	66	74	78	25	27	39	12	8	14	45	46	28
	QM	78	96	99	102	90	105	110	102	101	98	99	101	100	99	122	159	127	132	144	-
Colombia	QX	90	87	88	93	89	98	99	120	111	110	100	95	100	120	114	110	124	121	127	124
	P	8	18	16	7	21	9	-3.2	8	9	-1.4	7	14	7	4	6	9	3	32	17	4
	QM	73	105	94	77	110	109	111	148	179	172	172	120	100	112	142	147	143	136	158	121
Peru	QX	-	-	-	-	60	60	68	74	81	86	95	97	100	113	147	171	182	173	189	186
	P	-	-	-	-	14	10	6	9	5	5	5	8	13	8	7	5	7	8	8	16
	QM	-	-	-	-	53	73	76	83	71	83	108	121	100	81	93	117	131	137	144	171
Uruguay	QX	-	-	94	105	140	86	107	144	129	100	129	77	100	75	81	114	96	103	104	116
	P	-	-	2	5	-4.7	15	15	6	12	8	7	15	18	40	39	22	11	21	43	56
	QM	-	-	-	-	-	-	-	-	-	161	144	170	100	127	167	160	168	131	143	107

- continued -

Country		1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	11956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Mexico	QX	-	-	-	-	-	-	-	-	-	99	100	93	100	108	106	112	129	126	128	145
	P	-	-	-	-	-	-	-	-	-	16	4	6	12	2	6	1	1	1	3	4
	QM	-	-	-	-	-	-	-	-	-	85	100	105	100	93	98	96	96	109	-	-
Bolivia	QX	-	-	185	196	162	179	166	173	144	144	141	145	100	117	99	102	98	102	108	109
	P	-	-	26	11	0	0	100	100	125	78	181	116	3	20	12	8	6	-1	11	6
	QM	-	-	-	-	-	-	-	-	-	89	89	112	100	80	88	96	116	122	118	159
Ecuador	QX	61	59	65	54	80	61	83	76	83	83	85	98	100	114	128	115	126	155	143	139
	P	-	14	7	1	0	12	3	0	3	2	-5	0	2	0	3	2	4	3	6	3
	QM	38	45	47	47	48	51	65	71	106	108	102	97	100	99	107	106	95	122	141	156
Paraguay	QX	-	-	94	102	104	94	70	81	76	76	101	85	100	94	87	109	124	140	158	175
	P	-	-	33	35	-	-	117	73	20	24	21	16	6	10	8	18	1	2	1	4
	QM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	1-6	88	88	100	130

Source: Yearbook of International Trade Statistics, United Nationas, 1965; and, Boletin Estadistico de America Latina, United Nations, 1966.

Ecuador - it has been more possible to expand QM.

.- It was felt that a simple test of the relation between inflation and the trends in exports and imports would be to correlate annual changes in prices, lagged in various forms, with annual changes in QM*. That is, in black and white, if unfavourable external trends eventually force down imports this could be associated with the inflationary spiral (following the initial assumptions). So that over the long run the higher the falls in QM the higher the price increases, since MST could not advance without serious strains and consumption was affected. Correlations for the whole of this section were tried in unlagged terms (P), lagged for one year (P+1) and lagged for two years (P+2). None of the results were really significant and the fits of the equations were poor (see table VI). Weak correlations - between-0.4 and-0.5 - were obtained in Argentina, (P), Brazil (P), Chile (P+1), Uruguay (P+1 and P+2), and Ecuador (P+2). In Mexico a higher correlation (0.6) was obtained, but it was of the wrong sign. It should thus be concluded that if a statistical relation between these two variables is to be established, short-term analysis of both the variables and the relevant policy measures should be undertaken.

(5) The Capacity to Import (CM) and Total Imports of Goods and Services (MGS)

It should be clarified that, so far, the above exercises do not really disprove or prove the foreign-exchange bottleneck argument, althought they may throw some light on the behaviour of important factors. Firstly, structuralists are not only speaking of the behaviour of exports and imports as such, but of the total capacity to import and tht eotal purchases of imports

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*It should be advanced that linear correlation between domestic prices and several external variables was found to be an inadequate statistical measurement (See Table VI). In the majority of cases the correlations were minimal, frequently of the 'wrong sign', the fits of the equations poor, and the significance low. By the look of the trends it was equally felt that non-linear equations may also lead to poor results. The main reason for this is not the invalidity of thestructuralist argument but the fact that trends cannot be corrented for changes in short-term measures. That is the percentual changes do not only reflect changes in exports and imports trends chane but the impact of devaluation, deflationary measures, tariffs and controls, and import and export taxes which may actually compensate for changes in the former.

TABLE VI

Correlation Coefficients between the Cost of Living (P) and the Quantum of Imports (QM), the Capacity to Import (CM), Total Imports of Goods and Services (MGS), and the Balance on Current Account (B) 1947-65 (a)

Country		P		P+1		P+2	
Argentina	QM	-0.4	y=30-0.5x	-		-	
	CM	-0.2		-		-	
	MGS	-0.2		-		+0.3	
	B	-		-0.2		-0.2	
Brazil	QM	-0.5	y=34-0.5x	-0.3		-0 .2	
	CM	-0.3		-		-	
	MGS	-0.3		-		-	
	B	-		-		-0.3	
Chile	QM	-0.2		-0.5	y=35.8-0.9x	-0.2	
	CM	-		-0.4	y=36.4-0.5x	-0.3	
	MGS	-		-0.5	y=36.9-0.7x	-0.3	
	B	+0.5	y=48+0.11x			-0.5	y=13-0.12x
Colombia	QM	+0.2		-0.2		-0.2	
	CM	+0.2		-		-	
	MGS	-		-0.4	y=10-0.2x	-	
	B	-0.2		-0.3		-0.5	y=7.6-0.05x
Peru	QM	-		-0.3		-	
	CM	-		-0.2		-	
	MGS	-0.2		-0.3		-	
	B	-0.3		+0.2		+0.2	
Uruguay	QM	+0.2		-0.4	y=33-0.3x	-0.4	y=4-0.5x
	CM	-		-		-0.2	
	MGS	-		-0.2		-0.3	
	B	-		+0.3		+0.2	
Mexico	QM	-0.2		+0.2		+0.6	y=3+0.2x
	CM	+0.2		+0.2		-	
	MGS	+0.2		+0.45	y=5+0.12x	-0.3	
	B	+0.3		+0.3		+0.4	y=8+0.08x
Bolivia	QM	-		-0.3		+0.3	
	CM	-0.2		-0.2		-	
	MGS	-0.2		-		+0.3	
	B	+0.2		+0.2		+0.4	y=51-0.8x
Ecuador	QM	+0.3		-		-0.4	y=3.4-0.09x
	CM	-		0.3		-0.4	y=3-0.05x
	MGS	+0.5	y=1.6+0.1x	-		-0.5	y=3.5-0.1x
	B	-		-		-0 .2	
Paraguay	QM	-		-		-	
	CM	-0.4	y=27-0.7x	-		-	
	MGS	-0.5	y=26-1.0x	+0.2		+0.2	
	B	+0.5	y=45-2.74x	+0.3		0.7	y=18+1.1x

Sources: See Tables V, VII, and VIII

TABLE VII

Indices for the Total Capacity to Import (CM), Total Imports of Goods and Services (MGS), and the Cost of Living (P)[a], (1947-1965)

Country		1947	1948	1949	1950	1951	1952	1953	1954	1955	11956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina	CM	124	115	102	113	139	79	123	99	92	104	112	100	107	136	121	111	117	119	-
	MGS	128	121	87	86	117	96	72	76	93	87	104	100	78	101	119	117	87	95	-
	P	13	14	29	33	33	38	5	4	13	13	25	32	114	27	14	38	24	22	-
Brazil	CM	92	89	86	99	147	156	112	125	127	124	120	100	114	105	131	97	100	-	-
	MGS	89	79	79	81	148	142	96	117	96	95	111	100	105	119	110	108	106	89	-
	P	19	18	10	4	8	25	20	19	20	22	19	19	36	35	38	52	75	85	61
Chile	CM	52	76	81	70	93	110	94	90	113	110	104	100	129	140	148	151	132	151	166
	MGS	66	65	72	61	84	91	84	83	91	97	108	100	104	139	159	140	134	154	169
	P	23	18	20	17	29	22	18	77	74	58	25	27	39	12	8	14	45	46	28
Colombia	CM	69	79	85	91	124	125	160	179	143	165	84	100	121	134	104	84	82	170	155
	MGS	93	82	73	93	111	111	147	172	171	160	120	100	104	130	139	141	132	170	125
	P	18	16	7	21	9	-32	8	9	-1.9	7	14	7	4	6	9	3	32	7	4
Peru	CM	42	46	50	55	80	78	76	71	84	111	117	100	90	108	139	153	166	190	215
	MGS	46	45	44	53	74	75	75	66	86	104	121	100	82	100	125	146	154	171	205
	P	29	30	13	14	16	6	9	5	5	5	8	8	13	8	7	5	7	8	16
Uruguay	CM	149	149	132	207	204	223	213	197	127	185	157	100	87	163	200	148	151	145	-
	MGS	177	141	134	150	229	211	146	207	170	152	177	100	98	160	162	179	135	146	-
	P	15	2	5	-4.7	15	15	6	12	8	7	15	18	40	39	22	11	21	43	56

- continued -

Country		1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Mexico	CM	52	57	59	84	93	86	77	77	110	114	109	100	96	108	119	132	140	147	164
	MGS	74	59	47	52	85	79	76	75	75	94	102	100	79	141	136	141	153	184	192
	P	13	6	6	4	13	15	-3	6	16	4	6	12	2	6	1	1	1	3	4
Bolivia	CM	91	116	118	106	172	142	92	103	114	106	145	100	117	117	130	149	174	189	201
	MGS	85	101	117	85	141	141	100	93	103	117	123	100	101	107	136	149	149	149	163
	P	-	26	11	0	0	100	100	125	78	101	116	3	20	12	9	6	-1	11	6
Ecuador	CM	29	45	34	56	44	65	56	101	80	93	97	100	102	108	96	118	122	148	-
	MGS	41	47	45	41	52	57	63	99	91	95	96	100	98	114	109	111	116	148	-
	P	14	7	1	0	12	3	0	3	2	-5	0	2	0	3	2	4	3	6	3
Paraguay	CM	40	54	68	68	88	74	54	62	82	98	89	100	80	90	112	92	92	110	-
	MGS	64	58	46	50	68	80	56	74	74	86	90	100	84	96	106	92	92	104	-
	P	-	33	35	-	-	117	73	20	24	21	16	6	10	8	18	1	2	1	4

a) Source: Economic Comission for Latin America, New York, 1966and 1967; Balance of Trade Yearbooks, IMF, 1950 and 1961 (Estimates from figures originally in millions of USA dollars).

and imports as such, but of the total capacity to import and the total purchases of imports of goods and services. Secondly, because the trend in exports and imports - despite their fluctuations and downward or upward trends - does not reveal the fact that the latter may chronically outrun the former. This may be reflected in an also chronic balance of trade and payments deficit which may result in frequent devaluations and the curtailment of imports (both highly inflationary forces in Latin America). The fact that the capacity to import, despite supply efforts is insufficient to meet the import requirements (even when these are contracted) may lead to structural external disequilibrium and inflation.

This section will concentrate on the behaviour of CM and MGS* and the cost of living, and leave the comparisons between external revenues and external purchases as reflected on the balance on current account (B) and on the balance on capital account (B') for the following two.

With respect to CM, MGS, and prices, again one may group the countries with an unfavourable trend in CM and MGS - Argentina, Brazil, Colombia and Uruguay and, somewhat, apart Bolivia and Paraguay - and those with a favourable trend - Chile, Peru, Mexico, and Ecuador -.

1.- In Argentina, the CM has remained stagnant - or even decreased slightly- throughout 1947-1964. MGS, on the other hand, have been severely reduced (see Table VII). Such a trend - a foreign exchange bottleneck - has been accompanied by inflation, low income growth, and external disequilibrium. The Brazilian and Colombian cases are very similar. In Brazil both the CM and MGS expanded consistently from 1947 to 1951-2; and inflation was milder. But, from 1952 to 1963-64 they fell dramatically and inflation increased to its present proportions. Although the rate of inflation has been very erratic in Colombia, CM and MGS also grew until 1954, and tended to fall more moderately. The CM did not recuperate until 1964, but, meanwhile, the curtailment of MGS was reduced only slightly. In Uruguay too when the CM and MGS were growing (1947-1955) inflation was milder and and much higher when both factors declined. This is of course, what structuralists call an external bottleneck.

2.- In Bolivia there was also an increase in the CM and MGS until the 1952 Revolution. Afterwards, both variables declined until a minimum was reached in 1958 and the rate of inflation became hyperinflationary. From that year there was a rapid increase in the CM, a cautious recovery in MGS, and increasing price stability. In Paraguay the trends areless significant. The CM, however, expanded until 1951 and MGS until 1952; thereafter there has been a prolonged stagnation during which prices increased fastly until 1961 and stabilised afterwards.

*(See footnote in following page).

3.- In Chile, Peru, Mexico, and Ecuador it is again tiue that both CM and MGS have suffered frequent setbacks, but over the period their expansion has been rather significant. The most remarkable cases are those of Peru and Ecuador. Mexico's case is interesting since, although CM and MGS have expanded an inflation has come to halt, MGS has tended to exceed CM considerably precisely from 1958 when stabilisation was reached. Under these relatively favourable conditions, in principle, the structuralist model seems to apply: as the CM improves and MGS increase inflation is reduced, or remains moderate. Moreover, the expansion of the external sector may stimulate income. Something that is very true for Mexico and Peru, and only less so for Ecuador. The conspicuous exception is that of Chile, where despite the relatively favourable trend in CM there has been chronic inflation and slow growth (it should be noticed, however that the growth in MGS has been extremely irregular). This may be taken as an indication that the causes of inflation may lie more in the domestic economy and in economic policy.

4.- These comparisons, however, can only be taken as a generalisation of the structuralist theory. No annual relationship, despite the adoption of lags, can be established between yearly changes in the CM and MGS and the price lag, for the reasons already stated. Nonetheless, linear regression analysis was tried withvery poor results (see Table VI). There was either no correlation or its significance was low, and the sign frequently of the wrong sign. Again, the study of the CM and MGS in terms of relavant price indices and in the context of policy measures would be a very worthwhile exercise.

(6) Deficit or Surplus in the Balance of Trade and Services (B) and Prices.

A different and important measurement of the foreign exchange bottleneck should be the outcome of the absolute relationship between the CM and MGS, besides their relative tendencies. When CM is declining - and even though MGS are also beingforced down,- the external disequilibrium is reflected on the balance of payments. Or, even though CM is growing, it is possible for the external gap between expenditure and revenues to be so wide that there is a constant tendency towards external disequilibrium, and inflation. A simple way of measuring this absolute relationship is the situation in B. B measures the outcome of all trade transactions (exports usually fob and imports usually cif), services transacted (net tourism included), net foreign direct investment, and other transactions. It does not include trans-

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*(from previous page)
The capacity to import, following ECLA's criteria, includes exports of goods, tourism revenue, net autonomous capital movements, net foreign investment investment income, amortisation of trade arrears, balance of payment loans and errors and ommissions; and, MGS includes imports of goods and services and expenditure in tourism.

fers of private or government capital, both domestic and foreign, the capital movements of monetary authorities, and errors and omissions. Hence a deficit in B indicates how it was impossible to meet MGS with the CM obtained through trade, services, and foreign investment income (usually called the current capacity to import). With respect to the structuralist argument, a chronic deficit in B is an indication of a chronic shortage in the current CM; something that may lead to price instability, directly through devaluation or indirectly through tariffs, controls, taxes, and so on.

The surprising thing about the ten countries is that all of them have a tendency towards chronic deficits on B. Both the group where the CM and MGS have declined or stagnated present such deficits; and the group where the CM and MGS have expanded, also presents such a situation (See Table VIII)

1.- In Argentina, throughout 1947-1965, B has been in substantial deficit except in four years. Despite the fact, and even though CM stagnated and MGS declined, such deficits have tended to be permanent. The disequilibrium has been accompanied by rather severe devaluations, the persistent high inflation and a declining rate of growth. An important thing, however, is whether some relationship can be established between the deficit in B and the changes in prices. It should be noticed that, allowing for flexible lags, smaller deficits or better still small surpluses tend to coincide with severe devaluations and higher prices.* In Brazil the trends in B,P and D have been more acute, although it is more difficult to observe a relationship. What is surprising is that, despite the severe disequilibrium in these variables, the rate of growth was able to hold on until 1963. Afterwards the situation is less unorthodox. With the 1963 stabilisation programme there were severe devaluations, a surplus on B, very high prices, and a drop in the rate of growth. In Colombia and Uruguay, where the CM and MGS have fluctuated widely but tended to stagnate, deficits in B have also been chronic. Moreover, and even more so that in Argentina, a relation can be seen between higher prices, devaluation, and small surpluses. But, with respect to the rate of growth Colombia is closer to Brazil and Uruguay to Argentina. One can only say that the former had more 'dynamic' domestic markets than the latter. Where do these trends leave the structuralist model? It would appear that a foreign exchange bottleneck leads to deficits in B, severe devaluations, short-run surpluses in B (as a consequence of D) and to the recrudescence of the rate of inflation.

2.- Perhaps this is clearer - although in the opposite direction - in the more simple economies of Bolivia and Paraguay. Deficits in B have also been chronic, both during the decline of the CM and MGS and during their recovery.

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*Much depends on the amount of the devaluation and of the quarter where it is adopted.

But, while the first period 1952 to 1959 in Bolivia and, probably, 1948 to 1961 in Paraguay - was characterised by a fall in the CM and MGS, massive devaluations, a very high rate of inflation and smaller deficits or surpluses (!) on B, the second period was characterised by the opposite, i.e. reflected in higher deficits on B. This may be taken as evidence of the perversity of the foreign exchange bottleneck.

3.- The experience of the countries with the more favourable external trends has been more varied, although their external disequilibrium is present. Mexico is interesting because it presents an alternative outcome to that of the first group. There has been throughout the period a recrudescence of the deficits in B, accompanied by growing CM and MGS; although the latter outstrips the former. Thus devaluations have been rare, the rate of inflation has decreased, and the rate of growth has accelerated, precisely when deficits in 'B' have grown! Ecuador, although its economy is different, presents similar external trends: growing deficits in B, rare devaluations, not much change in mild price increases, and a mild rate of growth. In Peru the growth of CM and MGS has been relatively more favourable and growth in income fast, but inflation has also been relatively higher. Thus deficits in B have been chronic - although perhaps less severe - and devaluations more frequent however milder.

4.- Chile is a case all its own (perhaps the most frustrating of the group). The long-run trends in the CM and MGS have been relatively favourable and deficits in B have been large; but, unlike the above three countries, devaluations have been severe and persistent, inflation chronic and high, and the rate of growth poor. Could then this be taken as a consequence of 'faulty' economic policy and of living beyond one's means?

5.- Linear correlation between B and P was also tried, with expected poor results (see Table VI). It is convenient to insist, however, that although the significance is low the sign in some of the equations was revealing. That is, some correlations (between 0.5 and 0.7) were found in Chile, Colombia, Mexico Bolivia, and Paraguay. In the majority of cases, the correlation was positive indicating that higher prices are accompanied by smaller deficits in B, in the less inflationary countries or in those that have moved towards stability. In Chile this is true with an unlagged assumption. But, when a two year lag is adopted (P+2) the opposite is true: a higher rate of inflation is accompanied by larger deficits in B. The crudity of these relations could be lessened if the trends could be corrected for devaluations and other relevant policy measures.

Without intending to derive here any general conclusion from the behaviour of the B and price changes, there is one point that should be stressed. The chronic deficit in B for all countries clearly indicates the existence

TABLE VIII

Deficit or Superavit in the Balance of Trade and Services (B)[a], annual percentage Price Changes (P) and Devaluation (D)[b]

1947-1965

Country		1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina	B	-56	-82	-138	-208	-224	-412	277	122	-233	-129	-301	-256	14	-198	-573	-270	-232	34	195
	P	13	14	29	33	33	38	5	4	13	13	25	32	114	27	14	38	24	22	29
	D	-	5	9	14	-	-	-	-	36	37	-	70	83	-	-	134	-	157	189
Brazil	B	-145	-38	-118	106	-471	-710	18	-235	-27	7	-304	-267	-337	-521	-276	-461	-186	39	190
	P	19	18	10	4	8	25	20	19	20	22	19	15	37	35	38	52	75	85	61
	D	-	18	-	-	-	-	55	76	-	-	91	138	-	205	318	475	620	1850	2220
Chile	B	-182	-173	0193	-163	-174	-199	-216	-242	22	-24	-109	-107	-42	-177	-302	-227	-208	-145	-40
	P	23	18	20	16	29	22	17	77	79	58	25	27	39	12	8	14	45	46	28
	D	-	66	99	-	-	128	220	315	630	-	773	-	-	1.05	-	2.42	3.0	326	4.22
Colombia	B	-121	-63	20	-14	5	29	-14	-61	-141	-12	18	59	60	-85	-143	-176	-146	-137	-14
	P	18	16	7	21	9	-3.2	8	9	-1.4	7	14	7	4	6	9	3	32	17	4
	D	-	-	2.8	3.0	-	3.7	-	-	4.2	6.9	-	8.2	-	-	8.8	11.1	-	12.8	18.3
Peru	B	-18	-8	3	-3	-34	-47	-64	-7	-37	-100	-156	-117	-39	2	-19	-44	-91	7	-141
	P	29	30	13	14	10	6	9	5	5	5	8	8	13	8	7	5	7	8	16
	D	-	16	-	-	-	-	20	-	-	-	-	25	28	-	-	-	-	-	-

Country		1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	196
Uruguay	B	-38	-12	10	47	-79	-36	68	-35	-52	-8	-96	10	-50	-75	-23	-72	-5	-8	60	
	P	15	2	5	-4.7	15	15	6	12	8	7	15	18	40	39	22	11	21	43	56	
	D	-	2.4	3.1	-	-	-	-	-	-	-	-	10.2	11.2	-	-	-	17.4	24.4	70	
Mexico	B	-173	-55	25	217	-118	-101	-112	-23	154	-114	-296	-265	-161	-319	-215	-156	-200	-408	-364	
	P	13	6	6	4	13	15	-3	6	16	4	6	12	2	6	1	1	1	3	4	
	D	-	-	8.6	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	
Bolivia	B	12	15	22	0	2	-5	-21	10	1	-21	-34	-44	-25	-31	-28	-50	-49	-21	-32	
	P	-	26	11	0	0	100	100	125	78	101	116	3	20	12	9	6	-1	11	6	
	D	42	-	-	60	-	-	190	-	-	7760	8565	11935	-	-	-	-	-	-	-	
Ecuador	B	-15	-5	-17	10	0	20	3	-12	-18	-25	-6	-13	-5	-20	-28	-11	-10	-30	-31	
	P	14	7	1	0	12	3	0	3	2	-5	0	2	0	3	2	4	3	6	3	
	D	-	17.9	18.3	-	-	-	-	-	-	18.7	-	-	-	-	22.1	21.7	-	-	-	
Paraguay	B	-3	-4	-2	9	8	-6	3	-4	2	-8	-10	-16	-6	-13	-13	-9	-12	-12	-6	
	P	-	33	35	-	-	117	73	20	24	21	16	6	10	9	18	1	2	1	4	
	D	-	3.8	8.1	-	-	46	58	63	68	113	-	-	122	126	-	-	-	-	-	

a) Millions of USA dollars.

b) Source: Extimates from International Financial Statistics and Balance of Payments Yearbooks, IMF, 1967-50.

of a chronic foreign exchange bottleneck, at least in these terms. Whether CM and MGS where expanding or stagnating, CM (in current terms) has been insufficient to cover MGS. This may lead to greater or lesser inflation but in an indirect manner. That is, in those countries where external disequilibrium leads to devaluation, and hence to short-lived surpluses or smaller deficits in B, - ile. Argentina, Brazil, Chile, Colombia, Uruguay, and for an important period, Bolivia and Paraguay - the rate of inflation can be rather explosive and the rate of growth lower - with the clear exception of Brazil and perhaps Colombia. On the contrary, in those countries that could get away with chronic deficits in B with less devaluation and increasing MGS, - i.e. Mexico, Peru, and Ecuador - the rate of growth was higher and, paradoxically, inflation much milder. All these countries, including Chile, had a better CM trend. The latter period in Bolivia and Paraguay also presents this trend.

What is fundamental, of course, are the movements on capital account (B'). That is, the deficit on B is transmitted at some point to the balance on B' and to the overall result in the balance of payments. Thus one would have to describe in order to follow the structuralist argument*, the foreign exchange bottleneck as reflected on capital movements. Specially in Mexico where they appear to be non-inflationary, in Peru where they are less so, and in Chile where they presumably have been very inflationary.** Moreover, the inclusion of capital movements should further clarify the persistent inflation of Argentina, Brazil, Colombia, and Uruguay; and the slower pace of inflation in Bolivia and Paraguay in later years.

It would be convenient to include in capital movements net foreign private investment, foreign loans and aid, and the repatriation of private capita. But, on the other hand, to measure the net effect one should include the interests, profits, and amortisations that leave a country on account of private foreign investment, the interests and amortisations of foreign loans and aid; and, the export of domestic capital.

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* It is convenient, for example, to remember professor Seer's model.

** Mexico appears to have deviced a non-inflationary method to finance MGS, which are over-and-above CM and which create accumulated deficits in B; while Chile has not.

(iii) External Indebtedness

Before going simplistically into movements oncapital account, it is convenient to recollect a few ideas. 'The crucial question from the point of view of the structural discussion, writes professor Grunwald, it not what happened to exports and their purchasing power, but rather what was the course of the volume of imports which could have been used to supplement domestic supply and correct structural bottlenecks' (12). As far as the import quantum is concerned (See again Table V), it was seen that such a volume remained stagnant or declined between 1946 and 1965 in Argentina, Brazil, Colom bia and Uruguay, and less so in Bolivia. While the volume of imports expanded in Chile and Peru, Ecuador and Mexico. The situation is not much different when MGS is considered (See Table VII). MGS has tended to decline in Argentina, it has done so sharply in Brazil; it has fluctuated widely, but with a tendency to fall in Colombia and Urugyay; it has somewhat remained stagnant in Paraguay and recovered only in the 1960's in Bolivia. On the other hand, MGS has expanded considerably in Chile, Peru, Mexico and Ecuador. So, at least for this second group of countries, one may ask oneself professor Grunwald's question: 'Is there an import bottleneck?' (13).* Moreover, when one looks at the balance of trade and services and notices a chronic deficit now for all countries, it might be said that despite the tendencies in the current GM all countries bought MGS which could not very well be afforded.

This would then appear to be only a relative import bottleneck, but, on the other hand, it is foreign exchange bottleneck as reflected on B and as further reflected on B', when recourse to exchange reserves and gold and foreign credits is needed. It should be clear that in the first group of countries the decline in CM, at some point the period of analysis, created a financial bottleneck reflected in the balance of payments; and the stagnation or decline in MGS created a physical bottleneck. This is what structuralists call an inflationary external bottleneck. Moreover, what is fundamental is the historical decline in the CM; the gap that it created between the CM, MGS and income; and its overall instability resultant. Structuralists, as we have seen, carry the argument further: the disequilibria between the variables started during the 1929 crisis; CM recovered throughout World War II, although in some cases the pre-crisis level was not reassumed; and tended to stagnate a further lower level in the 1945-1965 period.**

In the second group, the structuralist argument has to be interpreted in a different light. In Mexico, Peru and Ecjador, the CM, although reduced by severe short-term set-backs, has tended to expand and recover in the period. This, however, has not prevented the CM from lagging behind MGS. It may thus

be said that there was no import bottleneck as such; although much depends on the possibility of these countries to attract foreign exchange (tourism and foreign exchange paper in Mexico, for example, and private foreign investment in Peru) to cover their imbalance on B. If this is taken to mean that there was no import bottleneck and that the foreign exchange shortage was financially met, in structuralist terms it is also true that these countries have had much lesser inflation and better rates of growth. The problem with Chile is that although the external trends have been similar, the economic results have been the opposite. In Chile then only living simply beyond her means and thus has only herself to blame for chronic inflation and slow growth? What structuralists are going to answer, stretching their model, is that for 1929-1960, the decline in CM holds true, although the behaviour in imports has improved:

Chile: Annual Compound Rates of Growth
for X, M. and P [a)]
(1928 - 1960)

Period	Purchasing Power of X	QX	QM	COnsumer Prices
1929-30 - 1940-42	-4.4	0.9	-4.6	7.8
1940-42 - 1944-46	-2.8=	-0.25	0.1	15.5
1944-49 - 1949-51	1.5	-1.45	4.7	19.8
1949-51 - 1958-60	3.9	2.6	2.6	38.0
1928-29 - 1959-60	-1.5	+0.6	-0.3	19.4

Source: J. Grunwald (Op. cit, pag. 512).

Thus while the argument holds true for 1928-1960, it is also true from 1944-1960 Chile has failed to profit - in lesser inflation and more growth - from a modest expansion in the purchasing power of exports and an improvement in imports. This is relevant considering the performances of Mexico and Peru, the former with high MST requirements and the latter with a more export geared economy.

Returning to the argument, it is clear that the ten countries have tended to find other means than the current CM to increase (or at least maintain some level) their imports. The fact brings us to how deficits in B were covered by capital movements.

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**(From previous page)
For a discussion on the subject see again professor Grunwald (14).

TABLE IX

Balance of Payments Effects of New US Direct Investment and US OFfical Aid and remittance

(millions of US dollars)

Year	A Net New U S Direct Investment	B Profit and Interest Remittances	C Total (A–B)	D Net US Aid	E Debt Repayments	F Interest on Debt to US Government	G Total (D–EF)	H Import
1950	- 27	-399	-372	87	-29	-13	45	3991
1951	150	-495	-345	126	-32	-13	81	6026
1952	344	-454	-110	97	-36	-13	48	5799
1953	132	-475	-343	399	-41	-16	342	4874
1954	27	-499	-467	103	-64	-27	12	5515
1955	134	-635	-501	141	-104	-30	7	5581
1956	537	-712	-175	182	-109	-30	43	5879
1957	1051	-785	267	247	-122	-30	95	6928
1958	215	-571	-356	611	-132	-39	440	6283
1959	119	-549	-430	389	-156	-57	176	5888
1960	85	-632	-547	262	-168	-67	29	6290
1961	144	-675	-531	740	-158	71	511	6613

Source: J. Grunwald, opCit. (pag. 318)

A source to fill the gap between CM and MGS could in theory be direct private investment. Table IX, however, shows that United States private investment from 1950 to 1961 was more than offset by profit and interest remittance to the United States, so that these investors received nearly 4 billion dollars more than the new money they put into them.* The date should be read only within the current balance of payments situation and must not be interpreted as revealing any magnitude of United States private or public investors contribution. Moreover, if one looks at recent figures the tendency remains the same: there has been a net outflow of capital on account of investment income payments, specially during 1963-1965.

TABLE X

Net Foreign Investment, 1961-65.
(Millions of US dollars)

Country	1961	1962	1963	1964	1965
Argentina	125	124	-168	+1	-195
Brazil	32	3	-82	-95	-103
Colombia	26	-10	35	158	-117
Chile	50	31	-97	53	-71
Peru	33	-5	-15	-27	53
Mexico	73	30	51	212	-147
Bolivia	10	24.4	16.8	-8	12.8
Ecuador	-24	-17	-11	-2	-5

Source: IFS, IMF, 1968.

A second source to fill the gap could have been net aid from the United States (see again table IX). Net US aid after amortisation and interest payments** was positive and did obviously contribute to cover part of the deficit in B. However, its amount is insignificant when the absolute values of the deficit in current account are considered (see again table VIII); and when the net result-(6 - c) which is almost always negative- is compared to MGS.

In effect, the chronic deficit in B was very likely met by long-term loans, both private and public (see table XI). The available data for the

*The global data is for Argentina, Brazil, Chile, Colombia, Peru and Mexico. it does not include Uruguay, Bolivia Paraguay or Ecuador; and it includes Venezuela. Still, it illustrates the general tendency and the soundness of the argument

**Almost 60% of the net US aid shown on the table was in interest bearing loan rather than grants.

for the last years of the period shows that there has been a net inflow of capital into the ten countries (abstracting from the other capital movements) on this account. The amount of the loans - speaking in terms of the relative size of the economies - has been significant. No generalisations, however, can be made for whole groups. Loans have been large in Argentina, but they declined in 1963-64. In Brazil, on the other hand, they were negative in 1960-61, but have increased considerably since then. The same is true for Peru. On the other hand, they have increased considerably or maintained a certain level in Chile, Colombia, Uruguay, Mexico, Bolivia and Paraguay. It is worth noticing that the huge loans granted to Mexico and Chile help to explain how MGS was able to exceed CM sustainedly. Also, in small economies like those of Bolivia, Ecuador and Paraguay, these loans may have been sufficient to cover deficits in B and stabilise the balance of payments in such a way that other recourses (like use of net gold and foreign exchange reserves or renegotiation or debts) were not necessary. On the other hand, in those countries (Argentina, Brazil, Colombia, and Uruguay) with a stagnant export sector and balance-of-trade difficulties long-term loans, as we shall see, were insufficient to break the external imbalance. These, of course, with the exception of Chile, are most inflationary.

In synthesis, the above exposition only tells us that United States aid (in a very moderate way) and long-term loans very likely contributed to bridge the gap between the current CM and MGS. It explains nothig more, however, about inflation and the external exchange bottleneck.

To continue with the structuralist argument - the external desequilibrium as a source of price instability - it is convenient to consider that the foreign exchange bottleneck reflects itself not only on current account (B) but also on the balance on capital account. On capital account it takes the form of increasing foreign indebtedness and an increasing financial inability to meet it. That is, loans and aid only solve temporarily the problem of a deficit in B because the increasing need to service and repay such loans is soon reflected in a degree of indebtedness that further enhances the foreign exchange bottleneck, reduces CM, and eventually MGS.

It does not follow, of course, that the argument as we have seen it in professor Seer's model is intrinsecally changed. It merely means, that if the foreign exchange shortage is first traced to the export-import sector, the analysis in terms of the balance of payments, enables one to go further into the financial implications of an external disequilibrium. Resuming, structuralists would claim that the connection between inflation and its structural causes is not only reflected in the CM and the MGS, but in the external indebtedness that an inadequate CM produces on capital account.

It is important in what follows to consider again the two groups of countries. First, those where the stagnation or decline in CM and MGS led to a chronic imbalance in B (Argentina, Brazil, Colombia and Uruguay). Second, those where CM and MGS expanded but where the disequilibrium between a small CM and a large MGS led to chronic deficits in B (Chile, Mexico, Peru and much less so, Ecuador). It is by no coincidence that this classification obtained independently from the above study is exactly the same as the one obtained by ECLA in a specific study on Latin America's foreign indebtedness. (15).

For lack of data the analysis will not cover Peru, Ecuador, Bolivia and Paraguay. But as it has been seen the Peruvian and the Ecuatorian cases are close to that of Mexico; and the Bolivian and Paraguayan to that of the first group. In Peru, which shows the best relation between CM and MGS, it is quite probable that loans have been small and payments relatively easy to make. However, Table XI shows that they increased in 1963-65*. It is also worth remembering that in the smaller economies (Bolivia, Ecuador and Paraguay) a small amount of 'free aid' may very well help them to balance their current account and avoid further balance of payments disequilibrium through an induced external indebtedness that reduces foreign exchange. Such free aid in the larger economies, Uruguay included, would be insignificant when compared with the actual 'deficits in B. Four million dollars worth of free aid can go a long way in Bolivia or Paraguay, but mean hardly anything to Brazil or Peru.

'Up to a few years ago, writes ECLA, the main concern aroused by balance of payments questions was focused on the short-term imbalance that often appeared as a result of export fluctuations'; today the emphasis is shifting to 'external indebtedness' (16). During the last decade (1956-1965) ECLA distinguishes two tendencies. In the first, 1956-60, monetary policy tended to concentrate on the problems on current account, either because the growth of purchasing power or exports was less satisfactory or because import demand became more dynamic. However, save in one or two cases, this did not create a serious financing problem thanks to the increased inflow of funds in the shape of loans and direct investment. In the first five years of the 60's on the other hand, the difference between the purchasing power of exports and the growth of imports demand became acute. 'What happened was that the pressure exerted by MGS in recent years had coincided with an increase in the

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*United States aid to Bolivia has been considerable, and rather small in Paraguay (15).

burden of servicing and repaying the capital and loans obtained in previous years. The result was the problem of indebtedness, further complicated by the need to obtain new loans, with the accent increasingly placed on short-term credit and to extend the terms of repayment of outstanding debts. Interest, profits, and amortisation payments thus began to grow more rapidly than export earnings'. In relation to this 'the marging of policy, writes ECLA, is ceasing to be a matter for independent decision, and is instead becoming dependent on the results of negotiations with creditors. Over the long term, these entries expand or contract according to the way in which the deficit produced by the external imbalance is covered; and it is only in the last few years, as a result of the widening of the financial gap, that more thought has been given to the future commitments involved and in the different ways of closing it (17)'.

The fact that the amortisation and servicing on foreign capital has been steady in increasing throughout 1951-1964 can be seen in Table XII. The effect that these payments have on the balance of payments may be seen in the following comparison. If one takes the CM and substracts from it the total income due to foreign investment and the amortisation payments of all loans, and compares the figure with MGS the result is a growing and chronic disequilibrium in the balance of payments. The disequilibrium illustrates two things: first, the degree of indebtedness, and second, the fact that a deficit in B ins transferred to a global financial deficit of the balance of payments. The disequilibrium appears both in countries with a stagnating foreign sector (Argentina, Brazil, Colombia and Uruguay) and quite so in countries with an expanding foreign sector (Chile and Mexico).

The most striking situation of indebtedness, disequilibria and inflation is that of Argentina, Brazil, Colombia and Uruguay, which in 1965 were forced further to reduce their MGS. Between 1961 and 1965 (specially in the last two years) exports were slowly recovering, while MGS fell sharply. In the two previous five-year periods, MGS had followed the pattern of exports more closely. The new pattern of behaviour was determined not so much by domestic factors as by the external financial difficulties which made it necessary to cut imports. Table XII also shows that between 1963 and 1964 the imbalance can also be traced to these difficulties since although the gap was narrowed, disbursements under the head of profits, interests and amortisation continued to increase.

TABLE XI

Non-Compensatory Long-Term Loans, Private and Public[a)]

(millions of dollars 1960-64)

Country	1960 Credit	1960 Debit	1960 B	1961 Credit	1961 Debit	1961 B	1962 Credit	1962 Debit	1962 B	1963 Credit	1963 Debit	1963 B	1964 Credit	1964 Debit	1964 B
Argentina	255	-41	214	459	-96	363	425	-186	239	274	-192	82	209	-248	-39
Brazil	348	-370	-22	579	-307	-272	368	-265	103	287	-219	68	318	-187	123
Chile	50	-41	9	143	-73	86	198	-62	136	213	-63	150	240	-69	171
Colombia	35	-24	11	54	-26	28	71	-28	43	80	-27	53	114	-7	107
Peru	23	-38	-15	49	-61	-13	90	-59	31	102	-57	45	112	-51	61
Uruguay	10	-6	4	18	-7	11	23	-8	15	24	-9	15	22	11	-9
Mexico	363	-190	173	352	-187	165	400	-267	133	426	-234	192	752	-379	373
Bolivia	13	-11	2	15	-14	1	25	-7	18	34	-14	20	31	-15	16
Ecuador	25	-9	16	22	-10	12	21	-11	10	14	-12	2	14	88	6
Paraguay	5	-1	4	7	-3	4	7	-2	5	5	-2	3	6	-1	5

Source: Economic Survey of Latin America, UN, N. Y. 1966.

TABLE XII

Current Capacity to Import, MGS and Service and Amortisation Payments on Foreign Capital (a) (millions of USA dollars 1951-65)

Year	CM	MGS	Foreign Investment Income			Amortisation			Balance
			Profits	Interests	Total	Autonomous loans	Compensatory loans	total	
Argentina, Brazil, Colombia and Uruguay	A	B	-	-	C	-	-	D	(A-B-C-D)
1951-55 b)	3599	-3894	129	57	-186	96	119	-215	-696
1956-60	3460	-3750	99	122	-221	330	168	-498	-1008
1961	3462	-4174	150	193	-343	436	158	-594	-1648
1962	3427	-4143	144	172	-336	488	260	-748	-1764
1963	3824	-3650	125	178	-303	447	246	-793	-921
1964	4112	-3798	131	248	-379	453	231	-684	-750
1965	4449	-3618	169	310	-479	-	-	-	-
Chile									
1951-55	460	412	50	12	-62	26	4	-30	-43
1956-60	493	509	51	16	-67	42	7	-47	-132
1961-64	589	-711	57	36	-93	63	106	-169	-384
Mexico									
1951-55	1042	-1000	89	11	-100	36	-	-36	-94
1956-60	1289	-1353	133	21	-154	86	-	-88	-308
1961-64	1644	-1644	184	76	-260	270	-	-270	-526
1965	-	-2049	256	69	-295	-	-	-	-

Source:
a) Economic Survey of Latin America, ECLA, 1966.
b) Throughout the following years a total for Argentina, Brazil, Colombia and Uruguayl

Chile is a country where both CM and MGS expanded, but where growth of the latter was steeper in absolute terms than the growth of the former. The result has been also a considerable indebtedness throughout the period, but one that did not contribute to stability. The Mexican situation is somewhat different. Mexico did not contract heavy debts before 1960, but from then on it began to get more deeply in debt; particularly from 1961 to 1964 when it received as much as 483 million dollars gross loans, more than double of what they were in 1956-1960 and short-term liabilities trebled what they were in 1960. (See Table XIII).

With respect to the structuralist model it appears that the stagnation of the export sector and the growing indebtedness that led to a shortage of foreign exchange which reduced MGS, in the first group of countries, was accompanied by strong inflation. In Mexico the fact that the external sector expanded and that indebtedness for the time being has been covered, led, on the other hand, to stability. But the case of Chile, remains to be explained. It is true that debt commitments are high and have increased, but surely the expansion of the foreign sector in physical and financial terms ought to have checked inflation. Thus one is inclined to blame inflation on the domestic economy.

It is useful to see the ways in which the differences between current revenue and expenditure on MGS plus the service and amortisation payments on capital account were covered (See Table XIII). That is how the deficit in capital account was met. Most of the funds available came from direct foreign investment*, groww autonomous loans and net short-term liabilities. But these funds fell short of requirements, since the outflow of capital - whose magnitude can be roughly judged from the movement of short and long-term assets and from errors and ommissions, made it more and more necessary to draw on compensatory financing and foreign exchange reserves - columns 9 and 10 -.

The bulk of foreign capital available in recent years consisted of gross loans, on the one hand; and, since the net result was insufficient to reach a balance, a gross balance of payments loans and sometimes on recourse to the reserves (i.e. 1962) on the other. 'In general, writes ECLA, the governments have little freedom of choice in regards to the type of loan and the length of the repayment terms. They arecompelled to resort to deferred medium and short-term financing of imports at higher rates of interest, as well as to other types of short-term financing. As regards official

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*This, however, in net terms has tended to be negative.

TABLE XIII

Evolution of Capital Movements[a]
(Millions of US Dollars 1951-64)

Year	Net direct Investment	Gross loans	Official Transfer Pay	Net Short-term assets	Total External Fundas Available	Balance	Short and long Term assets b)	Gross balance of pay.	Net gold & loans foreign ex
	1	2	3	4	5	6	7	8	9
1951-55[b]	84	165	3	-6	246	-451	66	247	138
1956-60	324	492	11	65	892	-116	-190	246	61
1961	135	1110	30	40	1315	-334	-2	319	16
1962	204	888	56	42	1190	-574	-392	321	645
1963	166	665	52	-75	808	-113	-271	367	17
1964	179	635	44	127	985	+239	-250	81	-65
Chile									
1951-55	19	27	1	2	49	+5	-5	5	-5
1956-60	42	45	22	3	112	-20	-3	23	-0.8
1961-64	12	198	8	30	248	-135	-6	121	21
Mexico									
1951-55	88	45	4	10	147	53	-24	-	-29
1956-60	79	177	-	38	299	-13	12	-	+1
1961-64	129	483	-	76	688	162	-123	-	-39

a)
Source: Economic Survey of Latin America, ECLA, 1966.
b) Includes net errors and omissions
c) Throuout 1951-1964 a total for Argentina, Brazil, Colombia and Uruguay.

credits, the capacity to absorb them has been often reduced by their lack of suitability for immediate requirements, rather inelastic terms, and, at times, a want of operational capacity in the borrowing countries. This has slowed down the pace of disbursement, as indicated by the fact that, in 1961-65, the loans authorised by IBRD and IDB and the US government averaged 1096 million dollars annually, but only 736 million were actually paid out per year. This marked disparity between the volume of loans authorised and actually disbursed, which persisted for five years, can be traced to a variety of reasons, among them administration delays and the difficulty of finding the counterpart national funds, and the insistence that loans should be used for certain countries. In addition, new loans have been mainly earmarked for specific projects rather than for general programmes (18)'.

The other source of non-compensatory funds is that provided by short-term liabilities, which rose sharply in 1964, and in general, are bound up with import payments. These, of course, have increased rapidly in Chile and Mexico, where MGS has expanded; and fluctuated in the stagnant countries.

The difficulty encountered in bridging the gap between CM and the expenditure on MGS plus profits, interest, and amortisation payments, were accentuated by the increasing outflow of capital which added to the imbalance. Hence the deficit in B leads to a'deficit' on capital account, reflected on the net movements of capital. This ensuing deficit made it necessary to resort increasingly to balance of payments loans and the increase in monetary authorities liabilities, the ulterior form of indebtedness and of foreign exchange shortage. For the whole group gross dollar balance of payments loans reached an annual average of 400 million in 1961-64, while the deterioration of the net gold and foreign exchange position meant that part of the compensatory loans received by the region had to be used to reconstitute reserves. (See again Table XIII). Hence this is the final outcome of a deficit in B.

The countries with the high degree of indebtedness and stagnating foreign trade ²Argentina, Brazil, Colombia and Urugyay - continued to have substantial deficit balances up to 1968, and were compelled to cut down MGS even further and to resort to external and balance of payments loans, since direct investment remained at a low level and net non-compensatory loans were insufficient. 'Their indebtedness became so acute, writes ECLA, that between 1957 and 1954, the monetary-authorities liabilities in general rose to 750 million dollars and 506 vis-à-vis the IMF. This combined with gross gold and foreign exchange reserves of only 385 millions in 1964, made the net position negative, and led them to renegotiate the terms of payment for debts contracted in the past.

In Chile the burden of external debt continued to increase. As may be seen gross balance of payments loans have increased sharply and in 1961-64 the net gold and foreign exchange position deteriorated. So far Mexico has not had any particular difficulty in financing its external debt, hor has it gone to the IMF., despite the fact that total loans have increased enormously. The most outstanding feature was the volume of foreign investment which in 1961-64 accounted for 44% of the region's total. But, side by side with this inflow of capital, the payments under the head of profits on foreign investment rose at an average annual rate of 18%; and autonomous gross loans mounted up (see Tables XII and XII).

In summary, the net contribution of foreign capital to the CM can be defined as the difference between the net inflow of foreign autonomous and compesatory loans (minus amortisation payments) on the one hand and other remittances on foreign investment on the other; that is, the net funds added - or deducted from - the CM. Where data was available, the following figures illustrate the net result:

Net Contributions of External Funds to the Capacity to Import 1960-65.
(millions of dollars)

Country	Net External Autonomous and Compensatory Funds less amortisation payments	Interest on External loans, profits and other payments on foreign investment.	Net Contributions to CM
Argentina			
1960	696.1	88.4	607.7
1961	327.2	165.8	161.4
1962	234.6	80.1	154.5
1963	43.5	71.5	-28.0
1964	-131.4	113.2	-244.6
1965	132.2	94.8	-227.0
Brazil			
1960	553.0	198.0	355.0
1961	454.0	187.0	267.0
1962	471.0	202.0	269.0
1963	236.0	147.0	89.0
1964	76.0	191.0	-115.0
1965	28.0	268.0	296.0
Mexico			
1960	194.4	190.5	3.9
1961	406.0	204.0	202.0
1962	228.0	237.0	-9.0
1963	359.0	266.0	93.0
1964	711.0	324.0	387.0
1965	201.0	339.0	-138.0

Source: ECLA, Economic Survey of Latin America, UN, N.Y. 1968 (pag. 78).

In these terms, the negative position has reduced the CM in Argentina since 1963 (although it has been declining since 1961), Brazil since 1964, and Mexico since 1965.* 'This negative position, which reflects the extent to which the various countries used external funds, was produced by f different factors ... in Argentina it was balance-of-payments (generally medium terms) and non-compensatory loans, whose amortisation payments led to a net disinvestment, in addition to the growing size of interest payments - while profits on direct private investment followed an irregular pattern; in Brazil it was mainly the size of the monetary authorities' short-term liabilities, together with an increase in external factor payments; and in Mexico it was the fluctuations in the inflow of external funds - almost entirely non-compensatory - in conjunction with large increases in payments under the head of profits, interest and other remunerations on foreign capital '(20). The experience of these countries, continues ECLA, reveals the present limitations of external financing and tends to reduce its significance as a dynamic factor of foreign trade. In other words, the original inflationary export bottleneck, will persist in this manner. This is ture of external financing as a whole, as well as of fts components, including direct foreign investment, long-term autonomous loans, balance-of-payments compensatory loans, the monetary authorities short-term liabilities and the IMF position. Once it falls to a certain level, net financing is converted into net disinvestment, and results in a fall in the CM. The implications are far reaching, if repayment periods, interest rates and payments under the head of profits remain the same and no really effective measures are taken to overcome the general problem of a foreign exchange bottleneck.**

*Ecla specifies that the position was also negative in Colombia and Uruguay, but positive in Chile, Peru, Bolivia, Paraguay and Ecuador (19).

**Since 1963, however, the IMF adopted a timid system of compensatory credit open to those countries with a declining CM. Since 1966 these credits will be available to up to 50% of the country's subscription (as against a previous 25%) while the country has still access to the Fund's current credit facilities. The credits, however, still have to be repaid in three to five years. There are also, of course, the tentative workings on 'special Drawing Rights or gold paper'.

Except for Mexico, the rest of these countries found it necessary to postpone the payments of their external debts. Thanks to an agreement in 1964 on the rescheduling of its payments, Brazil succeeded in reducing the commitments to 217 million dollars in 1964 and 242 million in 1965. In Colombia, as a result of renegotiating only 10% of the external debt had to paid off in less than five years. The negotiations conducted in Uruguay in 1965 led to the postponement of payment on 92 million dollars that fell due on that year, and an additional credit of 55 million was obtained.

The Argentinian case may illustrate these negotiations (See Table XIV) The weakness of the position with respect to gold and convertible foreign exchange by 1965, and the fact payments on the external debt falling due that year exceeded the predictable surplus on current account in the balance of payments led to rescheduling negotiations with the leading creditors. The debt situation, as may be seen, was heavily affected by short and medium term commitments since, over half of them, fell due in 1966-68. The refinancing of debts payable in 1965, however, has made little difference to the position, since 54% of the payment was deferred until 1966-68 and the remaining 46% until 1969 or later.

Official forecasts for 1965 indicated that payments totalling 300 million dollars falling due that year would have to be rescheduled. To that end, negotiations took place that deferred payment on 221 million dollars. The amount finally refinanced meant that obligations totalling 80 million at least would not be met. The Central Bank dealt with the problem by resorting to internal refinancing in the form of successive issues, during 1965, of external debt bonds to a value of 120 million dollars, of which 83 million were taken up in 1965. The remaining capital outflow was financed through an increased movement of autonomous capital and a small increase in reserves than had not originally been envisaged.

(vi) Some final remarks

The last step in this section is to make a summary in the manner of a re-estatement of the structuralist argument.

Structuralism claims that a shortage of foreign exchange - measured both on current account (B) and on capital account (B') - leads eventually to a supply bottleneck that entails inflation and perhaps slow income growth.

In Argentina, Brazil, Colombia, and Urugyay, the deficit in B can be traced 'backwards' in the behaviour of the X-M sector throughout 1947 - 1965.

TABLE XIV

Argentina: Annual Payments Falling Due Under the Head of External Commitments as at December 1964 [a] (millions of dollars US)

Year	Central Bank	Public sector	Private sector	Total
1965	236	173	317	788
1966	164	156	199	519
1967 or later	150	951	536	1607
Amortisation payments	550	1260	1106	2914
Interest payments	51	232	156	440
Total capital plus interest)	601	1492	1261	3354

Results of Negotiations for Refinancing of Loans due in 1965 in Argentina
(millions of US dollars)

Obligations	Loans falling due in 1965	Total amount renegotiated	Refinancing Terms
Agreement with IMF (1960, 1961, and 1962)	115	67	Postponements until 1967 and 1968
Joint Agreement with European and North-American Banks.	39	30	Payment deferred until 1966
Payments Subscription with IBRD	7	7	Postponement of conversion into dollars
Consolidated debt and refinancing granted in 1965 by Europe and Japan	195	117	Postponement of 60% of the payments due under financial 'aid'. Repayment in five installments
Total	356	221	(1968-72)

Source: a) Economic Survey of Latin America, ECLA, 1966.

But this deficit can also be traced 'forwards' in capital account. For all these countries the CM declined or stagnated and there was a fall in MGS. Looking merely at the deficit in B would indicate that MGS did not fall sufficiently in relation to CM. CM, however, also depends on the net result of foreign capital movements.

Looking backwards one can see how there was a decline in the value of the CM and MGS. In all countries there was a decline in the value of X and M, their coefficient of instability was high, and there was a DTT. Moreover, there was instability between the growth of GNP and the negative trends in X and M. The external disequilibrium has forced these countries to cover the gap with increasing foreign loans and aid! The fact has created a 'degree of indebtedness' that, through the service and amortisation payments, has resulted on a deficit on B'. In such circumstances, it has been necessary to take recourse to balance of payments loans and to incur in reductions in the net gold andforeign exchange reserves. Nonetheless, the ultimate result of foreign indebtedness has been the inability to meet foreign creditors. It is also fundamental to notice that the degree of indebtedness has ultimately decreased the CM. Hence MGS have been forced down for two reasons: the decline in export value and the negative capital movements. This double deficit in B and B' is what structuralists nightly call a foreign exchange bottleneck.

If one incorporates inflation into the picture it is clear that all these countries are very inflationary.* Moreover, the rate of inflation has increased hand in hand with the deterioration of the foreign sector. This is more noticeable in Brazil, Colombia, and Uruguay, because Argentina has maintained a more or less 'steady' high rate of inflation.

If the rate of per capita growth is now incorporated, the picture may appear less clear (See Table XI, Part I).

It is true that Argentina (1.1%) and Uruguay (0.5%) have been stagnant economies, and that this accompanied by high inflation (21.4% and 17.4% respectively) and the foreign exchange bottleneck. Brazil (2.7% and Colombia (2.0) on the other hand, have had relatively high rates of growth, accompanied by severe inflation (24% and 8.4% respectively) and a deterioration of the foreign sector. It is important to notice, however, that as inflation proceeded at a faster rate and the external sector deteriorated, the rate of growth declined. (See Table XII again). Nonetheless, it would appear

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*Colombia's inflation averages 8.4%, a lower rate when compared to the other three. However, it is a rate that has fluctuated violently, it has increased with time, and it has been chronic.

that the domestic economies of Brazil and Colombia have been more able to maintain an important rate of growth despite unfavourable external trends. A lot depends on how MST advanced. But, also, they they are having increasing difficulties to do so when one sees their balance of payments and inflation problems.

In Bolivia and Paraguay the situation is not really different, allowing for the fact that MST has probably a much lesser impact on growth. The chronic deficit in Bolivia's B can be traced to the fact that CM fell sharply, and MGS did so much less. When one considers the rate of inflation it is necessary to establish two periods: there was almost hyper-inflation between 1950 and 1959 (53%), while there was relative price stability in 1960-65 (5%) If the inflationary period is interpreted in terms of the CM, a loose connection can be established between the variables. Moreover, when both CM and MGS started to recover (1957-1965) inflation eventually came to a halt. In the inflationary period the rate of growth declined (-2.2%) and, when inflation was stopped, there was a recovery in GDP (2.4% in per capita terms).

In Paraguay, the situation has been semilar, although the foreign sector was more stagnant than in Bolivia. There was a chronic deficit in B, despite the fact that MGS grew very slowly. In all cases the CM, the value of X, the coefficient of instability, and the terms of trade were rather unfavourable. The almost hyper-inflation (120%) she suffered is confined to 1946-1955; after the rate of inflation was reduced considerable to 12% in 1955-1960, and to 5% in 1960-65. Despite the fact that the rate of growth has been considerably stagnant throughout (1.2%). Very likely there is a strong relationship between the slow growth of the foreign sector and the slow growth of GDP; but, the same as in Bolivia, for the almost hyper-inflationary process it is also useful to look into the domestic economy.

The cases of Chile, Peru, Mexico, and Ecuador are different to the above countries. Although it is true that the countries have suffered a severe deficit in B and have had problems with B', and their disequilibrium stems from the fact that MGS have been much higher than the CM. It is possible that the CM was unfavourably affected by movements on capital account; but considering the more favourable trends in X and M the pressure on capital account should have been milder than in the others. Tracing backwards the deficit in B, it was seen that although CM and MGS grew considerably, the growth in MGS was much higher (specially in Mexico). Hence if the expansion of CM in relative terms was insufficient this does not mean that the export sector was stagnant. There was high growth in exports (specially in Chile, Peru, and Ecuador) and in imports (specially in Mexico).

Moreover, instability in the growth of exports and imports was low in Mexico and only more so in Chile. This was not true, however, for imports in Ecuador and for both imports and exports in Peru. With respecto to the volume of trade there was an expansion; and QX was probably raised to compensate for DTT (except in Chile). Despite the fact there was a chronic deficit in B and, at least Chile and Mexico, have had deficits in B'. All these countries found it necessary to enlarge their CM through foreign loans. The result has been also a considerable degree of indebtedness that in the later years has affected negatively the net CM. Both in Mexico and Chile the growing amount of gross loans is enormous and the repayment schedule severe. However, Mexico so far has been able to meet its debts, while Chile has had to take recourse of balance-of-payment loans and gold and foreign exchange reserves. Thus these countries experience a foreign exchange bottleneck as reflected on B' and an increasing foreign indebtedness.

Not everybody agrees. 'Experience has shown, writes professor Grunwald, that countries can increase merchandise imports in spite of balance of payments difficulties. The question remains whether imports would have increased significantly had the purchasing power of exports risen.faster. One can only speculate about this, but there is some doubt as whether credit from international agencies, official loans, and grants would be available or would be used to the same extent had exports been growing more vigorously.* Of course, a lasting export boom would unquestionably result in higher imports, but, judging from past experience, the increase probably would be in response to consumer demands rather than to the needs of increased productivity and industrialisation...** In any case (these countries) managed to obtain imports over and above what export growth would have warranted...unlimited imports can solve a lot pf problems, including inflation and also, given enough time, structural maladjustments. This, however, is not a basis for any realistic argument because imports can never be expected to grow sufficiently fast to maintain stability and correct imbalances at the same time' (21). The structuralist argument is based on a decline or stagnation of the CM, something true in six countries. Moreover, it is based on a compatibility between income growth (at say 5.5%) and exports and imports. The incompatibility in these trends takes the form of foreign exchange shortage. It is not realistic to talk about unlimited imports; but it is realistic to think about a rate of growth either based on primary exports or in MST industrialisation. On both cases the rate of growth will depend heavily on the external sector and on the balance of payments.

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*It appears, however, that foreign credits are incapable of reducing the foreign exchange bottleneck.

**This is a questionable statement judging by the import schedule of the semi

(continued on next page)

Nonetheless, when one incorporates the rates of inflation and growth into the picture, the structuralist argument of a foreign exchange bottleneck still is applicable to mexico and Ecuador, only less so to Peru, and not very much to Chile. The first three countries are cases where the - foreign exchange bottleneck has been reduced, and this has led to a milder or slackening rate of inflation.

In Mexico there has been mild inflation (5.3%) and fast growth (2.9%) But the rate of inflation decreased considerably pari passu with the growth of the external sector and the rate of income growth (see Table XII again). Hence the rise in exports and foreign loans has permitted an expansion of the CM and MGS, and the possibility to repay foreign debts. The growing amount of external indebtedness, however, is worth considering: if it is maintained at the same trend, and judging by the moderate growth of exports, it will continue to reduce the CM. Ecuador is a similar case in so far as there has been mild growth (2%) with relative price stability (2.1%) and a mildly favourable external sector. Peru, on the other hand, is a case of average inflation (7.8%) and a good rate of growth (2.4%) together with the fastest growing external sector for these countries. Undoubtedly, the rate of growth and the check of inflation is a consequence of the high CM and MGS.

Chile's rate of inflation has been very high (22.6%) while its rate of growth has been low (1.4%). This happened despite the growth in the CM, the expansion of MGS, and huge foreign loans. Thus the trends in the external sector, within the whole of the period of study, had a small impact on inflation or growth. It seems better, whether in monetarist or structuralist terms, to look for the causes of inflation and slow growth in the domestic economy.*

Professor Grunwald says (22) that there are three general explanations for the failure to achieve stability with growth. One that imports were not high enough to permit the elimination of bottlenecks (our first group of countries) nor were they sufficiently orientated towards this end (perhaps the case of Chile). Another is that it takes time to effect structural changes and that the twenty-year period is not long enough for the necessary adjustments to work themselves out. The third interpretation is that structural adjustments cannot be expected to come mainly via the balance of payments, but must be based primarily on fuhdamental reforms deriving from within the economy. For the author the heart of the problem lies in the last two

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** (from previous page) industrialised countries: the import of intermediate goods and capital goods has relatively increased more than consumer goods.

*It should be remembered that, after the simple testing, the monetarist thesis was not found suitable.

elements. He, however, concedes: 'The foreign sector can provide the means for holding action to permit the necessary changes to be effected'. This, essentially, has been the variable function of foreign trade in the industrialising countries of Latin America in the recent past. The more rapidly the economy grows, the more rapidly can the nedesary structural changes be carried out. This is the problem between the foreign sector and industrialisation, because while this takes place, imbalance will persist and financial instability is likely. If the external sector is stagnant, however, the instability will be greater and the whole process may come to a halt.

Recapitulating, to reach a structure of production sufficiently elastic to meet without inflation the demand changes inherent to growth is, for the reasons given by structuralists, a big order for Latin America. If the region is to meet this change sustainedly it will either have to rely more on its traditional exports or continue with MST. On both counts she will have to rely in imports, so that the balance of payments becomes crucial for stability and growth. The trouble is that the industrialisation effort, especially when based on MST, has in turn created further structural imbalances. The next section will study this proposition.

c) Industrialisation and the Price Level.

The external sector bottleneck in the structuralist analysis, as it has been seen, has as one of its consequences the process of import-substitution in Latin America. Industrialisation itself, it is claimed, constitutes a further causal factor in the inflationary process. But, differently from the other structuralist causes of inflation, this causal factor is a policy induced one. That is, it does not spring solely from the underdeveloped nature of the economy but from actual decision making. This is a controversial issue that further reveals the differences between structuralists and monetarists:

1.- For an 'extremist monetarist' - an ideal one - industrialisation as a source of inflation is a consequence of conscious economic policy;

2.- For an extremist structuralist industrialisation, policy making or not, was imposed without alternative on some of the Latin-American economies.

3.- There are also intermediate positions where two different steps are distinguished. Although initial industrialisation, and hence inflation, were imposed via the foreign exchange bottleneck, a second phase may be distinguished where import-substitution implied a policy 'mistake' and that it further contributed to inflation.

Industrialisation has, of course, existed in may Latin-American countries since at least the second half of the XIX century. The process was limited to coltage industries; food, clothing, and other consumer and raw material processing industries. However, the inflationary industrialisation that interests structuralists is a different one, import substitution. The structuralist position is illustrated in the following quotation. 'After the crisis of 1929 it became clear that since the existing level of demand remained at virtually the same level, while the capacity to import was sharply reduced, it was no longer possible to make an ex-ante adjustment between the structure of production and the domestic demand by foreign trade. An ex-post adjustment was made through a substantial increase in the relative price of imports, which provided a shapr stimulus to domestic import-substitution production. By making full use or even excessive use of the existing capacity, it was possible to replace a proportion of the goods formerly imported. Later, by reallocation of factors, expecially the foreign exchange that was in such short supply, the available capacity to import was used for purchases of capital goods and raw materials needed to establish new production and thus continue the import-substitution process (1).

The statement, nonetheless, should be taken with certain precautions. It is close to the Argentinian, Brazilian, Chilean, and Uruguayan experienc Important qualifications have to be made in the case of Mexico: The Mexica Revolution (1910-1920) created a different setting for industrialisation: t great crash did not affect the economy to such a large extent since this ha pened during the reconstructing period; moreover, import substitution did not receive its big push until second World War. This last statement is al true for the late-comers into the Latin-American indastrialisation process, for our purposes, Colombia and Peru.

From the point of view of the controversy the arguments are then two:

1.- In what relative terms has import substitution, regardless of its historical appearence, contributed to the inflationary spiral?

2.- To what extent has industrialisation been an erroneous inflationary policy - the ideal monetarist standing -; or to what extent was it imposed by the structural nature of the economy - the structuralist argument - ?

Dr. Prebisch writes that 'onee exports decline cyclically an import-substitution policy has to be improvised. It is generally applied not as a prudent measure that anticipates the demand for development and the fluctuations of exports, but as a step imposed by critical circumstances when exter nal dsequilibrium has already occurred. Moreover, the inescapable need to protect substitution, and the extreme forms that this protection assumes, create conditions unfavourable to export development, and thus increase the tendency to disequilibrium' (2). Hence import-substitution may be imposed b as the process develops it may also imply equivocal policy measures. ECLA does not really support this opinion, while professor Grunwald inclines himself to consider industrialisation itself as a source of disequilibriu. 'Allowing for the basic influences of the external sector against which indi vidual governments were powerless, says ECLA, there is also support for the view that the reasons why industrialisation has generally led to insufficien absorption of labour, largely incompetitive market structures and high production costs, and an extremely uneven distribution of income is the failure to adopt suitable economic policy measures... However, it must be recognised that within the basic parameters of the import substitution model the industrialisation process could hardly have led to radically different results fr those actually produced' (3). On the other hand, the author concludes (..it is conceivable that structural problems may arise without any exogenous factors (i.e. an external bottleneck). Even in the absence of an export decreas government policy may, in an effort to accelerate economic growth, embark th country on the path of industrialisation through import-substitution. Whethe this will actually lead to imbalances of not will depend upon the size of th

growth effort relative to the economy's capabilities.. The balance of payments above does not make for structural changes. The structural inflation is rooted on the desire to grow and industrialise faster than the present structure of the economy can accomodate. The emphasis (is)... in placing the responsibility for structural adjustments on internal policy' (4)*.

Still, apart from how import-substitution appears, it is true that the behaviour of the external sector will greatly help to shape the process. Let us resume the argument following O. Sunkel (5). The intensity of the industrialisation process depends very largely on the level and rate of growth of exports. If there is foreign exchange, the growing diversification needs can be progressively taken over by the gradually expanding manufacturing sector. But if the external conditions are precarious and (or if foreign exchange reserves are diminishing, as in the 30's and 50's in Latin America, the proO cess of structural transformation has to proceed very rapidly and at the same time the capacity of the country to import is very limited. For this reason a large and growing volume of imports in relation to GDP means the most favourable conditions to achieve a smooth economic growth, while a small and contracting proportion of imports means that the industrialisation process will encounter great difficulties and have strong imbalancing effects. Thus one cannot dissociate the import substitution from the causal behaviour of the external sector.

This study shall adopt a structuralist criteria, with some qualifications First, import-substitution was adopted - imposed if one insists - as a consequence of exogenous factors. Second, industrialisation in itself is regarded in Latin-America as a primer objective of economic policy. In the words of Dr. Prebisch: 'Why is industrialisation advocated to increase the rate of growth and income distribution? Because the shifting of manpower from relatively improductive activites - agriculture, cottage industries, and services - represents a net increase in the average per capita product of the economy (6). Third, once import substitution was instituted, the process, policy and structurally-wise, revealed a tendency to enhance the price and external disequilibria. Fourth, industrialisation policy has presented, whether inescapably or not, serious problems to the process of growth.

The objective of this section is only to explore the relationship between import-substitution as a policy and inflation. However, to analyse the subject it would be necessary to evaluate the Latin-American industrialisation process, something that lies outside of the scope of the paper.** Therefore, only super-

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*The hypothesis has been explored in the previous section (b).

**For an introductory bibliography into the subject see notes (7)

superficial attention will be dedicated to the structuralist import-sbustitution model, before saying something about its inflationary nature. This section, is formed by: (1) the structuralist import-substitution model; (2) the inflationary nature of the model and its future; and (3) some empirical evidence and recommendations for further research.

The survey will include those countries that have had price instability and relatively considerable import-substitution processes. Because today almost all Latin-American countries have industries. That is, the selective criteria adopted in the introduction, with respect to the historical background of inflation and industrialisation, will be followed. The countries selected may be simply divided into two groups: (1) those that industrialised earlier and as a consequence of the 1929 crisis, Argentina, Brazil, Chile, Uruguay, and Mexico, and (2) the late-comers, Colombia and Peru.

(1) The Structuralist Import-Substitutuion Model

Whether the structural change started as a consequence of the Great 1929 Crisis, as in Argentina, Brazil, Chile and Uruguay; as a consequence of the Agrarian revolution and Second World War, as in Mexico; as a consequence of this war and further instability in the external sector, as in Colombia and Peru, the structuralist thesis is that new conditions were created for growth and stability or instability. The new growth model would have the following characteristics:*

1.- A decline in the external sector's contribution to National Income.
2.- An increase in the contribution of the industrial sector to GDP.
3.- An alteration in the composition of imports by reducing certain imports in favour of intermediate and capital goods.
4.- An industrial expansion within the narrow framework of the domestic economy, which imposed a closed character to growth.

Generally speaking this is what is understood by import-substitution (MS The term MST is often used in a simple and literal way to denote the reductic or elimination of certain imports and their replacement by domestic industri production (visible MST). This definition is unsafisfactory because it give the false impression that the process consists solely in the removal or reduction of the components of the import structure and the replacement by national products. Thus it might be assumed that tht tendency is towards self sufficiency (apparent MST). Experience has shown that nothing could be further from the truth**.

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*Historically a very uneven process througout time and in the different countries.

**See the bibliography recommended (8).

The substitution process may not reduce the over-all import quantum. When it occurs it is a result of restrictions in the external sector rather than an aim in itself. The place of the ousted goods is taken by others, and as the process gains momentum it generates an increase in a derived demand for imports of intermediate and capital goods which may lead to greater dependence on the external sector than during the earlier stages of the substitution process (real MST). Dr. Prebisch puts it in the following words: 'Little progress has been made in elucidating the problem of the feasibility of import substitution. It is a policy of circumstances rather than a selective criterion. In the face of external disequilibrium it is usual to restrict imports of consumer goods which usually promote substitution processes, regardless of the types of goods concerned. The policy facilitates the import of goods essential to economic activity and leads to an increasing rigidity in the composition of imports. The structure can be distorted to only include raw materials, vital intermediate goods and a few capital goods, together with essential items for consumption. As a result a contraction in the capacity to import has a depressive effect on the economy and creates a new external vulnerability (9)'*

What are then some examples when import-substitution does not necessarily bring a relative or absolute fall in certain imports?

1.- The extreme case would occur when no change takes place in the structure of imports. In such an event there is no visible substitution, even though an effective process of substitution may be taking place through an increase in the domestic industry's contribution to an expanding domestic supply, which would be reflected only in a reduction of the economy's import coefficient.

2.- When new products appear it is difficult to compare the schedules of imports in the different periods. When new durable goods appear, as after Second World War, their domestic production cannot be strictly described as 'substitution' in terms of pre-war products.**

3.- The decline of consumer goods as a result of exchange policies aimed at reconciling the overall level of imports with the CM. It may well happen that some of these products are not actualle replaced because of the size of the market is small or because factors of production are not available, and that their reduced share in the import structure is virtually attributable to import controls. If these were eased, imports of such goods would climb.

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* The process, on the other hand, may lead to price instability via the external sector if imports are not really reduced and/or via the industrial sector if demand is expanded and production costs increase.

** (See footnote in the following page).

4.- The obvious case, of course, is that when real substitution is usually much less than the apparent substitution manifested in the reduction of certain imports. That is, when the import demand for final goods, is substituted by the demand for basic inputs, payments for technical services, capital goods, and so forth.

Hence there is visible MST, reflected in the import structure; apparent MST, reflected in absolute reduction of some imports; and real MST, reflected in the import coefficient, among other indicators. A reduced definition of MST is then closer to reality. That is, it is true the MST process becomes apparently less dependent on external sources and transforms its dependence. The process will give rise to a number of structural modifications in the economy tending to resolve the contradiction between the growth of National Income and the behaviour of the external sector. But, it is also fair to advance that, as the process develops, the external and internal problems, both structural and financial, tend to accumulate to the point where they act as a brake on the process. To fully understand the development of the model it is necessary to take account of the following indicators;

1.- The import coefficie nt is the main macro-economic aggregate which shows the share of the external sector in the economy. A reduction of it means real MST.

2.- The share of imported goods in total consumption and the share of imported investment goods in total gross fixed investment. A reduction may mean real substitution, but changes in relative weights point only to visible and/or apparent substitution.

3.- Simply, the percentual weight of industry, mainly manufacturing, in total GDP, which also reveals real substituion, if imports decrease or apparent if imports increase.

4.- A comparison of the evolution of GDP and industrial production, mainly manufacturing, shows the increase in industrialisation with respect to other sectors.

5.- The evolution of the import quantum in general and the index of industrial production, on the assumption of initial MST because later an increase in the import quantum may be compatible with industrial growth where MST is taking place relatively between consumer goods and intermediate and capital goods. This visible or apparent substitution may only be measured in terms of more detailed indices.

**(from previous page)
This is a theoretical assumption more than a practical result. It is difficu to find domestic production of goods for which there was no previous domestic demand satisfied by imports.

6.- The relative changes in the import structure or schedule. Two classifications may show such a movement:

a) The more usual one divides the import structure by categories:

I. Consumer Godds.

A. Durable

B. Non-Durable

II. Fuels and Lubricants

III. Raw Materials and Intermediate Products

A. Metal-goods (spare parts and sub-total)

B. Non-metal goods.

IV. Construction and Building Materials

V. Capital Goods.

A. For Agriculture

B. For transport

C. For industry and others

VI. Various.

b) The import structure by economic use and destination.

I. By type of use

A. Intermediate products (consumption or investment)

B. End products (consumption or investment)

II. By destination

A. For consumption

B. For Investment

7.- A comparison, on the micro-economic level, between the evolution of the relevant series of industrial production, the different imports and apparent consumption and between their respective rates of growth, in an attempt to assess how far the rate of the former was able to reduce or at least curve the growth rate of the latter. This is a crucial point if one wants to measure the financial instability that MST may create seen through comparative costs and prices.

Coming back to the process, MST may be taken, in the general sense, as one of expansion and diversification of domestic production - specially manufacturing - in face of the limitations of the capacity to import. 'If the import substitution process is to be successful, writes CCLA, and is to permit domestic economic expansion, given a capacity to import which increases slowly or sometimes remains stationary or even declines, it is essential that some

import categories be reduced, eliminated or prevented from increasing at the same rate as the overall quantum, in order that others may be maintained or expanded and new products, indispensable for continual development, may be incorporated' (10). It has also been said that the substitution effort cannot be measures only in terms of the decrease in imports. Even where single products are concerned, substitution may be taking place without any apparen contraction of purchases abroad. This necessarily implies that the expansio of consumption is being more than proportionally covered by domestic product ion or in other words that the percentage of total supply represented by imports is diminishing. Up to here the MST taking place may be observed in in dicators 1 to 5.

Moreover, the first phase of import-substitution is reflected in the import structure by a reduction in the proportion of finished consumer goods and an increase in the proportion of intermediate goods. However, once this proces is completed the persistence of the same import structure (say in consumer, intermediate, and capital goods) may means that a sbustitution is being effe ed in several of these categories and at the same time, MST then goes on wit each group.*

The possibility of maintaining MST depends on the degree of flexibility in the structure of imports - when the capacity to import is limited - which in turn depends 'on creating as soon as possible' certain intermediate produ tion units which are of strategic importance for furthering the process. In other words, the feasibility of proceeding with substitution depends upon th types of substitution already effected. If substitution were confined to fi consumer goods, the import schedule would be virtually limited to the import needed to maintain current production, with no margin left for the entry of new products and in particular the necessary capital goods for the expansion of capacity. Thus a second step implies embarking promptlywith substitution in respect to additional categories, especially of intermediate and capital goods, before a rigid import structure stops the process.**

In this intermediate production sector - and to some extent in the capi tal goods sector - it is agreed that there is a considerable time lag betwee the decision to produce and entry into operation. So that if import-substi- tution is not undertaken until these products are in large demand and form an important proportion in the import structure, most certainly there will l excessive pressure on the foreign exchange supply and instability. Accordi

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(Footnotes * and ** in the following page)

According to ECLA, it is practically impossible for the industrialisation process to proceed from the base to the apex of the production pyramid, that is to start with the more simple consumer goods and progress gradually until it includes capital goods. The smooth MST would depend, among other things, on: (1) a degree of foresight in MST that depends on autonomous decisions of the government and entrepreneurs; and (2) the limitations of the foreign sector, in sofar as the capacity to import, an inflow of foreign capital, and the composition of foreign debt.

Taking the second classification of the import schedule in end and intermediate products, as MST progresses one would expect an increasing participation of intermediate goods. This is consistent with the normal modification of the import structure that accompanies industrialisation in a Latin-American country where the capacity to import does not increase rapidly. The long term continuity of such a trend, however, may lead to an imbalance and or stagnation. Given the limitations of the capacity to import with respect to the growth of income, the relative contraction of end products in relation to intermediate products may ultimately become a decrease in absolute terms; the rigidity of the import schedule would be ultimately aggravated; and imports of capital goods, which are the most important and the most flexible under the head of end products, would be restricted. This would not only retard the growth process but would also increase the external vulnerability of the economy, since the maintenance of the existing industrial activity itself would depend on the imports of intermediate goods.

With either classification, if the maintenance of the capacity to import is achieved at the cost of more and more external borrowing and the margin of imports for investment purposes could be secured by only virtue of a discriminatory exchange policy and a considerable inflow of foreign capital, the process of continuing the MST are not really very encouraging. (See the previous section). And the maintenance of the existing overall import coefficient would imply a substantial increase in the already rigid import schedule, since

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*ECLA on the experience of Brazil writes that in the general categoreies MST is sometimes not visible. This happens, for instance, with durable consumer goods as a whole because, despite substitution, new products appear and there are periods of 'squandering of foreign reserves', i.e. after the War. Also, raw materials and intermediate products in general may not show a decline because they comprise the basis inputs for the industries producing non-durable consumer goods, in which substitution is accelerated when an external bottleneck appears. But descending to the item level would on may occasions reveal MST, both in relative and absolute terms (11).

**The point may very well be that the 'second wave of MST' also ends in a rigid import structure.

the margin of imports susceptible of restriction is becoming steadily narro
er. In this terms the next logical step would be the substitution of capit
goods, something relatively new to the experience of Latin America. In any
case ECLA referring to the Brazilian case where the MST has advanced furthe
writes: while the growth model 'through MST may have played a reasonably
useful part in the diversification and expansion of Brazil's industrial act
vity in its various stages, the dynamic impulse with industrialisation by
this method seems to have been virtually exhausted' (12). Still, this is so
things that has to be explored in the context of the selected countries.

The only object of this exercise, besides describing the structrualist
MST model, has been to point that two main causes render the model rigid an
unstable. First, its dependence on the behaviour of the capacity to import
the external sector bottleneck which was analysed in the previous section.
Second, the fact that rigidity in the MST process may also obey to the char
acteristics of the domestic economy; a point which will be made in what fo
lows. Because what one is trying to see is how the MST rigidities - both
external, the foreign exchange bottleneck, and domestic, a policy-induced
factor by the detractors and a policy imposed one by the defenders - reflec
themselves on the inflationary spiral.

(2) The Inflationary nature of the model

As it has been said, within an MST model the foreign exchange bottle-
neck may create rigidity in the import structure. But, this rigidity in th
import structure (which leads to some amount of inflation) is also a conse-
quence of domestic factors. Among them the most important ones are the
structure of the national market, the nature of technological progress, the
natural resource endowment, the distribution of income, and the existence o
structural unemployment. The structuralist thesis may be interpreted as on
where these factors act as a brake on the growth potential of an MST proces
besides inducing inflation and a host of policy problems. But the fact
should not be taken to mean that MST ought to be discarded as such. Struct
alists are merely point out the mistakes in the MST experience of Latin Ame
ica and the need of revising the subject within such an experience. Here w
shall concentrate on the rigidities of MST, leaving their solution, if any,
to a section dealing with structuralist reforms.

What are then the real domestic conditions that affect MST in Latin
America and that further enhanced price stability? What may be considered
the most important ones are presented in the three following groupings:

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*For a discussion on the subject see S. Macario, and on Mexico, R. Izquier

1.- The nature of modern technology in relation to MST. The argument is whether UDC should use capital intensive or labour intensive investment in their MST process. The more accepted thesis is that because of the other characteristics of the model, there is hardly any important alternative to capital intensive investments.* But what interests us here is that MST may be faced in Latin America with the structural unemployment of unskilled labour and may further contribute to it. This technological condition reflects itself on two other phenomena that define MST: the size of the market and the distribution of income. Two factors contribute to the unemployment tendency: the population growth and the high capital-intensive technology adopted in the modern branches of industry.** Within an MST model that advances, such unemployment could in theory be absorbed by the services sector or by public works programmes. Even so the future does not appear favourable to this solution. Further use of computers is envisaged in the tertiary sector. In the public work sector the technology adopted also entails a lower level of man-power absorption.***

2.- The availability of productive resources. That is, there is a disproportion between the supply of fvarious factors: natural resources and unskilled manpower may be relatively abundant, while skilled manpower and capital are scarce. Consequently, it is claimed the ideal macro-economic patterns of production which would be more in keeping with such supplies of resources are completely different from those resulting from the sum of the micro-economic patterns actually adopted by entrepreneurs in the MST process, on the basis of the existing system of relative prices. This disproportion tends to widen as the process advances, in that increasing quantities of scarce factors are used in the secondary sector, while the rest of the economy remains unaltered. The situation is also largely responsible for the serious struactural unemployment of unskilled labour and for potentially productive reserves left idle.

3.- The size and structure of the domestic market. The previous set of

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*For a discussion on the subject see the bibliography recommended at the beginning of this section.

**The highly theoretical solution to the problem of unemployment versus technology is seen not within the MST context but in terms of a development plan, where government investment is the determinant.

***MST, however, should not be equalled to the general problem of industrialisation and technological progress in an UDC. The problem of technological progress would still be present whether via MST, 'autonomous' industrialisation or, say, agricultural development which may require capital intensive techniques.

conditions shape this third one, where the problem of price instability becomes more evident. 'As far as the internal conditions are concerned says Dm. Sunkel, the first is the size of the domestic market for manufactures. It is not only that income per head is low in Latin-American countries, but that the very unequal distribution of income reduces the possibility of developing mass markets for most manufactures. On the other hand, modern technology has been created for mass markets, so that relatively small markets may mean the un-economical use of avanguard equipment, or alternatively, the use of deficient techniques or worn-out equipment... Thus the size of the market will certainly determine the stage of diversification industry can reach' (14). In other words, the size of the market - which is fundamental for the shape of the MST process will take - is determined by modern technology, the availability of resources, the structural unemployment and the distribution of income.*

The size and diversification in industry is determined by domestic demand and its future growth in Latin America. This depends on the existing and future level and distribution of income. Now, structuralists assume that the demand for MST products was initially determined by high-income groups. This encouraged industrialisation, but it entailed disadvantages in terms of cost structure and concentration of production. It follows an inevitable trend towards a concentration of economic activities since it was inconceivable that a large number of enterprises could be established on a competitive yet profitable basis, to fight for single product markets that were very small (with the exception of certain markets for consumer goods). Moreover, the problem grows more complex with intermediate goods since these require a still larger scale of production in relation to the size of the market. On the other hand, one could assume that the initial MST of non-durable goods expanded the market in two ways: through the increase in income of high income groups and through the employment of workers. However, as MST progresses, and especially as it includes more categories of durable consumdr goods, the relative growth of the market becomes mainly vertical, that is, it is still based on the income of high-income sectors. This happens because: (1) the high density of capital reduces a large absroption of labour; and (2) the high unit value of goods permits the entry into the consumer markets of only small sectors of the population.

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*Section (e) is dedicated to the distribution of income as a feature of the structuralist school.

Mr. D. Felix also analyses the handicap of the size of the market, but does not stress the role of income distribution (15). For the author, the previous concentration of production - 'a highly protective monopolistic environment' - does not induce private investment to increase productive efficiency. The consequence for him is that even with modern plants and low wages, domestic industries tend to have considerably higher unit costs. A second major difficulty ensues with 'the tendency of widening of the industrial base'; the movement of substitution to intermediate goods. Its pace, Mr. Felix writes, has been more rapid the more sluggish the capacity to import in order to save foreign exchange through MST. This has given industry a bias for producing middle class products, such as consumer durables. When correction is intende, policy still tends to favour new industries (exchange and tax subsidies), as agains the modernisation and expansion of existing ones. Two consequences follow from the precarious widening of the industrial base. (1) it means a rapid movement towards the production of sophisticated industrial goods, with a small domestic market that cuts fundamental economies of scale; and (2) output curves tend to be linked, rising rapidly when imports are being replaced, but flattened when future growth depends in the growth of domestic income. Profits have also followed this pattern. Thus such industries may fall into monopolistic quiescence with lower profit rates, a reduced level of investment, and aging plant and equipment.

The fact is that this lack of competition, the smallness of the market, and the advancing MST process reflect themselves in higher costs. The problem of costs may be defined in terms of comparisons between domestic and foreign prices. For ECLA, however, the main significance, in practice, stems from the domestic standpoint and relates to such macro-economic questions as the wastage of scarce resources and the inadquate utilisation of the reserves or labour (16).

The point then is to see how these higher costs theoretically traduce themselves into inflation.

The explanation from the orthodox point of view is simple. Assume neutral monetary, budgetary and income policies and a balance of payments in equilibrium. The variable element is an MST policy. The hypothesis is that, with a given exchange rate that accounts for the general conditions in wages and productivity, the new industries will have higher costs than their foreign competitors. Initial protection is thus necessary. Thus MST will make goods more expensive for those already employed. If the employed ahhieve an increase in wages, the setting is ready for an industrialisation policy that leads to inflation

Industrial protection will specially lead to inflation if the goods substituted are those consumed by the employed, if workers are unwilling to accept a temporary reduction in their level of consumption caused by higher costs (wages increase); or, if prices of agricultural products increase. On the other hand, the increase in employment leads to a higher income level which puts price pressure via demand on existing capacity and on the balance of payments.

Resuming, the conclusion usually reached is that production designed to replace imports is generally more costly and that such is the price for industrialisation. But, as was mentioned, industrialisation is advocated as the means of increasing the rate of growth and income redistribution. Because in theory the shifting of manpower from relatively improductive activities represents a net increase in the average per capita product of the economy as a whole. Moreover, the higher cost of MST is supposed to be absorbed in the over-all economy. The process. may not be such when inflation advances.

The problem, writes Dr. Prebisch, is that MST does not come gradually, but it is imposed by the external desequilibrium originated in exports. If the process were carried out gradually and the cyclic rise in the import coefficient affected only those which have no impact on the level of consumption in the masses, the higher cost of substituting activities could also be absorbed gradually. But this is not what happened, and the increase in costs occurs, precisely when income per capita declines or when its growth is slowed down... The impact is strongest when imports decline instead of rising and when there is a very wide gap in per capita product as between export and substitution activities (17)*. What are then for the author the reasons for the inflationary cost of MST?

1.- Substitution has had to be improvised during critical situations without economic feasibility considerations.
2.- The smallness of domestic markets make it necessary to incur in exorbitant costs.
3.- The MST process has assumed excessive proportions because of the failure to expand export activities pari passu with MST.

When this point of the discussion is reached - the inflationary cost of MST -, Dr. Prebisch and other structuralists readily admit that something has to be done about it. That is, MST is not discarded and such policy induced or autonomous mistakes are recognised, and multiple propositions are made to construct a new MST policy in the context of Latin-America's structural and financial problems.

(*See footnote in following page)

We shall deal with this 'new MST policy' under the heading of 'the Structuralist Reform', although it is fair to advance that not much is to be expected as we shall note in the following paragraph. Still, resuming, the main recommendations centre around the following topics:

1.- The amount and length of protection from the foreign market, or, alternatively, the amount of competition recommended in the case of certain goods.

2.- A foreign trade policy based on subsidies and not tariffs, intended to avoid the domestic production of non-essentials and the import of essentials.

3.- Regional integration in Latin America, a common market.

4.- The expansion - or creation - of industrial exports to advanced countries.

5.- A foreign exchange policy, with different rates versus devaluation.

6.- In other words enlargening the size of the domestic market (which is simply the growth objective) and setting a chain reaction which would alter the other structural limitations: income distribution, unemployment, the use of modern technology, the capacity to import, and so forth.

Two major doubts rest in this context. First, the fact the growth potential - and hence the tendency to some stability - of the MST model, as we shall further see, is a subject of controversy. Second, the need of a specific empirical study on the inflationary cost of MST leaves much to be desired. That is, it is not enough to claim that structuralist as a rule, based on theoretical logic, arrive simply at the answer of higher prices induced by MST. Although there are partial studies on the subject, a major effort outside of the scope if this paper is necessary to explore the MST inflation in Latin America. There is a need for fundamental national and sectorial quantitative analysis if one is really to see the role of higher costs in the over-all structuralist inflationary thesis.

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*(From previous page)
In ahother place Dr. Prebisch writes: 'There is a failure to promote exports. There has been discrimination in favour of industrial bustitution and against exports, mainly industrial exports... some countries conscious of the need to encourage exports, have resorted to multiple rates of exchange. Multiple exchange rates have been rejected by monetary orthodoxy, without the application of a rational subsidy policy. However, it can happen that, by increasing exports beyond a certain point, prices fall both for the increase and those that already existed, and the resultant net product is lower than what would have been obtained by substituting activities, and may even be negative. This is the basic argument in favour of protection in Latin America (18).

An agenda for future research, improvising, could follow the next process:

1.- The comparison of the different costs between domestic and foreign goods in the different industrial branches.

2.- The construction of a relevant industrial production index that comprises those industries where MST appears to be inflationary and another where cost disadvantages do not appear.

3.- Based on this data, the construction of an inflationary industrial price index.

4.- The measurement of the contribution such an index plays within the wholesale and cost of living indices. This would mean not only the necessary proof for the structuralist thesis but a course for policy decisions, both financial and productive.

Returning to the theoretical doubt on the future of MST models, ECLA writes: 'The inability of MST to carry the development of most of the Latin American countries very much further is a premise that is widely accepted by economists of the region... The Brazilian economy (for example) is now faced with a problem of strategy, coupled with other short-term problems, deriving from the fact that MST as a development model has already reached its final stage and it is now imperative to move on towards a new and truly autonomous phase (19).'

As far as the results of continual MST are concerned, other things beir equal, it would tend to slow down economic growth. Given the low import coe ficients - in Argentina and Brazil two of the lowest in the Western world - and given the kind of goods that currently constitute the rage of imports i. e. essentials such as fuels and intermediate goods plus capital goods - substitution would lead to investment with a high capital output ratio. In other words, it would bring about, over the short-term at least, a process of growth with diminishing macro-economic returns. Consequently, for an ec nomy to keep its present pattern, the present rate of expansion would obviou ly be difficult to maintain unless a more intensive rate of investment is achieved than has hitherto been the case.

In actual fact, the external bottleneck may paradoxically stimulate the growth process only to the extent that there was excess internal demand for imported consumdr goods. Substitution of these imports expands the dom estic market and generates a demand for capital and intermediate goods whic in their turn, produce a fresh external bottleneck, another wave of substit tion and so on in succession. When, however, the process reaches such an a vanced stage that, on the one hand, the imports not yet replaced by the sub stitution process consist chiefly of capital goods, raw materials and in- termediate products for industry and on the other, the consumer goods

industries have reached maturity and exhausted the market which was theirs by reason of the external bottleneck, the latter ceases to act as an incentive to investment and hence to growth, and becomes merely an obstacle. In other words, the point is reached where the items that make the import structure and include categories suitable for substitution are capital goods. These may be, however, the products of a consequential demand which does not in itself justify substitution. Where will the demand come from to warrant such substitution? This happens when the expansion of the more dynamic consumer goods industries has lost its initial momentum (with the saturation of the reserved market) and has come to the point where future growth will tend to depend on the rate of income growth.

From this it may be inferred that, when an external bottleneck exists, the continuity of the growth process depends fundamentally on an autonomous demand for capital goods; thereby freeing foreign exchange and thus permiting the imports of certain raw materials and intermediate goods for which domestic production facilities are inadequate. Autonomous demand of this kind has, moreover, an important short-term function to perform, which is to prevent the loss of momentum which may well plunge the capitalist sector into a depression (in which caase the external bottleneck would be attenuated, at least as far as the pressure of imports is concerned). Thus, for ECLA the strategic problem is how to make the transition from an MST model to a self-sustaining growth model. In accomplishing the task of bridging the gap between the two models, the decisive variable will be the demand for capital goods and the volume and composition of government investment. Thus ECLA says that only the public sector, with its relative significance within the economy is capable of providing autonomous demand on a sufficient scale to counterbalance the negative effects of the exhaustion of the external stimulus and a restricted market for domestic consumer goods.

(3) Some empirical evidence

The obvious evidence of MST is to be found in the relative weight of the external sector. Following the indicators mentioned above, a reduction in the import coefficient with respect to GNP shows the existence of real MST (as well as the effect of import contrds).

The Import Coefficient as a Percentage of GNP 1945-64[a]

Country	1945	1950	1955	1960	1963	1964
Argentina	19.1	7.4	5.7	6.7	5.6	5.6
Brazil	16.6	7.5	5.6	5.7	4.9	4.0
Chile	21.8	11.2	11.6	14.0	12.7	13.7
Colombia	18.7	10.9	13.0	910	7.8	8.6
Peru	-	13.0	16.5	14.3	18.1	17.8
Uruguay	-	22.2	20.2	14.8	11.1	11.4
Mexico	19.4	11.2	10.3	9.4	9.0	9.8

a) Source: Economic Survey for Latin America, 1966 and 1953, U.N. New York

The above talbe shows that in all cases - except for Peru - the import coefficient has been reduced and indicates the possible parallel growth of the industrial sector and of MST. Although the 1945 figures appear to be 'too high', the trend reveals that in Brazil and Uruguay the decrease in the relative importance of the external sector has been remarkable; the same is true, although there has been fluctuations and a more moderate trend, in Argentina, Colombia, and Mexico. In Chile, the import coefficient has tended to fluctuate with a tendency to increase between 1950 and 1964. Pefu offers no doubt: the external sector has gained importance. Thus one may gather that there was real or absolute MST in the first five countries, while MST, if any, was only relative or within the import structure in the last two.

Alternatively, this evidence should be reflected in the increasing importance of the industrial sector with respect to GNP.

Manufacturing as a Percentage of GNP - (1950-1965)[a]

Country	1950	1953	1958	1960	1965
Argentina	29	27	32	32	34
Brazil[b]	16.5	18.9	-	23.4	24.1
Chile	18	17	19	18	18
Colombia	16	15	16	17	18
Peru	14	15	15	17	18
Uruguay[c]	18	19	22	21	23
Mexido[d]	23	24	25	26	29

(See Sources in the following page)

a) Sources: For Brazil, Economic Survey of Latin America, 1964, U.N., New York;
For all the rest, United Nationas Statistical Yearbook, 1966, U.N., New York.
b) The 1965 figure is an average for 1965-64 and the 1953 figure is for 1955.
c) It includes mining which has an insignificant relative importance.
d) The figure is for the whole industrial sector and construction.

Accordingly, the manufacturing coefficient (and industrialisation and MST) has gained relative importance in weight in Brazil and only slightly less so in Argentina, Colombia, Mexico and Uruguay. On the other hand, the fact that in Chile the import coefficient has not really declined is compatible with the almost constant weight of manufacturing. Peru presents an interesting case where the manufacturing sector has gained importance together with a higher import coefficient. Here MST is not visible. This could be taken as evidence of growth in two fronts: the expansion of the external sector has made possible a simultaneous MST process with lesser imbalance. Moreover, this is consistent with the fact that the Peruvian economy is a growing one, while the Chilean is stagnating. In all countries, of course, the relative weight of the manufacturing sector reveals the degree of industrialisation.

Given the indicator of a contracting coefficient for imports, one also could measure in principle the MST process observing the behaviour of the volume, and value of imports in absolute terms. That is, the relative decrease in the import coefficient could be reflected in absolute terms on the value and quantum of imports. This is under the assumption of visible MST where no account is taken of substitution happening within the import structure - industrialisation taking place at the same time imports increase.

The question is: how much did the relative decrease in imports reflect itself on the actual value and volume of imports? (See tables III and V in section b). This would not happen in those countries where the importance of the external sector tended to increase. True enough there was substantial growth in the value and quantum of Peru's and Chile's imports. The value and quantum of imports has tended to decrease (- although severe fluctuations are present - in Argentina, Brazil, Colombia and Uruguay. Mexico, on the other hand, despite its relative increase in the export sector presents a more or less sustained rate of growth in the absolute value of imports. This has made MST easier to carry.

Taking into account that new industrialisation was occuring in all countries except perhaps for Chile, how can this information be interpreted with reference specially to the pace of inflation which is the main point of interest? A hypothesis can be advanced where a shortage of imports, although stimulating MST, creates a strain on the process that causes increasing inflation. For example, the more scarce imports become the higher the strain on existing capacity plus higher costs for imported intermediate goods, specially if devaluations and controls are recurrent. It is true that in Argentina, Brazil, Colombia and Uruguay, where import shortage has become chronic, inflation has speeded up. But, again, no simple correlation could be established*. The same is true for Mexico: it may well be that relatively growing imports allowed the industrialisation process to proceed with a much milder inflation. The Chilean case remains to be explained. With an increasing in imports one would have expected a slower pace of inflation and hence a lesser strain on the slow industrialisation process.

Another indicator of the importance of MST appears in the comparison between the rates of growth of GNP and manufacturing (See Table I). In broad terms, it can be said that from 1948 to 1965 the manufacturing sector tended to grow at a much faster rate than GNP. Very fast rates of growth can be noted in Brazil, Colombia, Peru and Mexico. In Argentina, Uruguay and Chile industrial growth has been more irregular. It appears that Argentinian manufacturing growth, within the period of study, took place between 1948 and 1958; after that there was a severe industrial crisis which lasted until 1963; thereon there seems to be a sharp redovery in 1964-65. In Uruguay, on the other hand, the stagnation trend in the early 60's is accompanied by a fall in manufacturing growth.

Abstracting from the behaviour in imports, what is important for the analysis of the structuralist model is whether there is a relation between the 'strained industrialisation taking place' and the rate of inflation. Within the theoretical MST model one would expect that the more the industrialisation growth the higher the inflationary tendencies. The statement may be somewhat true for Argentina and Brazil, Chile and Colombia. In Argentina and Uruguay the stagnation of the industrial sector (1959-1962 and 1958-1964) were not accompanied by a fall in the rate of inflatio

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*Linear regression analysis did not prove useful in the sense (see the previous section).

TABLE I

Index Numbers for Real Growth Rates of GNP and Manufacturing and the Cost of Living Index - (1965-1948)[a]

Country	1948	1953	1958	1959	1960	1961	1962	1963	1964	1965
Argentina										
GNP	-	78	100	94	102	109	107	103	111	120
MAN	67	65	100	92	98	108	100	94	108	120
P	14	46	100	214	282	309	395	491	600	771
Brazil										
GNP	-	75	100	107	114	123	129	131	136	142
MAN	41	63	100	108	125	138	148	148	153	153
P	25	42	100	137	185	256	390	684	1270	2050
Chile										
GNP	-	89	100	103	100	108	116	119	125	129
MAN	66	94	100	114	112	119	131	139	146	153
P	5	13	100	139	155	167	190	274	400	512
Colombia										
GNP	-	83	100	107	111	116	122	126	134	138
MAN	48	73	100	108	115	122	130	136	144	-
P	45	66	100	107	111	121	124	164	192	199
Peru										
GNP	-	80	100	104	113	122	133	131	149	-
MAN	62	78	100	109	125	138	152	163	179	-
P	45	74	100	113	122	131	138	148	164	191
Uruguay										
GNP	-	-	100	97	101	104	101	100	102	-
MAN	-	-	100	96	99	97	97	96	101	102
P	41	47	100	140	194	207	263	317	454	710
Mexico										
GNP	-	69	100	103	111	115	121	128	141	149
MAN	51	60	100	109	118	123	131	143	162	174
P	47	66	100	102	108	109	110	111	114	118

a) Source: United Nations Statistical Yearbook, 1966, UN, New York.

In Mexico, moreover, as industrialisation proceeded the inflationary rate was reduced and in Peru, inflation was mild. These different patterns indicate that it is not convenient to abstract oneself from the external sector.

In other words, the general industrialisation evidence should be compatible in the structuralist model with the trends found in the external sector in the previous section.

In fact, different tendencies should be distinguished. In the group of countries with relatively favourable external sectors - Chile, Mexico and Peru - the experience was varied. In Peru the growth of the CM and MGS was reflected in a high import coefficient, a significant rate of growth, and mild inflation. And, although important industrialisation was taking place, growth was more export oriented. In Mexico, there was expansion in the CM and MGS, in the industrialisation process, in the rate of growth and inflation was halted; but the import coefficient declined. Thus there was important MST in a realtively stable setting.* Chile presented the worse of all alternatives. Despite the fact that there was a cyclical growth of the CM and MGS, the import coefficient and industrialisation, the rate of growth tended to stagnate, while inflation was severe. In the rest of the countries, which experienced a contracting external sector, MST has been substantial and the rate of inflation high. Brazil and Colombia were capable up to some point in the early 60's, however, of maintaining a high rate of growth. While Argentina and Uruguay were not. In Argentina the indicators point that MST had advanced considerably by 1950 while the Uruguayan domestic market probably offered little more scop for further MST. All these four countries faced a serious external bottle neck which has presumably - as it has been seen in the model - made the MS process painful and financially more unstable.

Summarising, the relation between the external sector, MST, and inflation offers three experiences in the period of study:

1.- A foreign exchange bottleneck, advancing MST, inflation, and growth (Brazil and Colombia).

2.- A foreign exchange bottleneck, MST within an industrial crisis, inflation, and stagnation (Argentina and Uruguay).

3.- A relatively favourable external sector, advancing MST, mild inflation, and high growth (Mexico and less so Peru).**

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*In structuralist terms this should not be taken to mean that MST man not induce inflation. Simply, when the external sector is expanding and forei commitments can be met or postponed, industrialisation may advance with considerable less strain on prices.

**(See footnote in following page).

Let us try to look a bit more closely to the MST process and inflation in support of these tentative conclusions.

More conclusive comments can be made in respect to MST as seen through changes in the composition of the import structure. There is evidence that the majority of these countries have in these terms, experienced a good deal of visible MST (see Table II). If one takes the consumer goods coefficient it is obvious that substitution has taken place within this group. The countries that have reduced the coefficient to a very small fraction over the 1947-1965 period are, in order of MST importance, the following: Brazil, Argentina, Colombia, Mexico and Uruguay. Moreover, this sort of substitution has proceeded at a very faxt pace in all of them except for Argentina where this sort of MST started at an earlier date. Over-all, Chile does not reveal much substitution in these terms, however, it is necessary to analyse each country to find the categories and the periods when visible substitution was taking place and to explore the range of experiences in Latin-America's MST process.*

Brazil, for obvious reasons, is the country where the substitution process has been more intensive. The consumer-goods coefficient has been highly reduced between 1948 and 1960. Both categories, non-durable and durable consumer goods, decreased sharply in terms of relative imports; from 9.8 to 4.5% and from 7.5 to 1.7%, respectively. After that there was some relaxation in protection which permited slightly increasing imports. On the other hand, fuel and intermediate product imports have increased their importance very much as a corolary of the growth in industrial demand and the induced demand for imports. The fact that fuels represent 20% of total imports by 1965 is taken as an indicator of rigidity in the import structure. Moreover, within the category of intermediate products there is evidence that there has been substitution of metallic products, mainly spare parts (21). With respect to capital goods there also appears to be considerable MST. However, such evidence should be taken with precautions because capital goods imports have been reduced not so much because of MST as because they were the only items that could be cut down in the face of a growing bottleneck and balance of payments disequilibrium without paralising industry. Nonetheless, the creation of the Brazilian car industry has reduced sharply the import of goods destined to transport.

**(From previous page)
The idea that the relationship could result in a stable model is an assumption worth exploring in the context of underdevelopment and Latin-American case study industrialisation. That is, a 'model' where an expanding external sector, a 'new' industrialisation policy, an autonomous demand for capital goods, price stability, and sustained growth are present.

*For specific bibliography on the subject see the footnote (20).

Argentina's MST process, although less spectacular, has also had major proportions. Non-durable consumer goods' imports were further reduced from 7.6 to 3.2% between 1948 and 1960, the same is true for durable consumer goods between 1948 and 1963 (from 5.0 to 3.1%). However, reductions in the early 60-'s may be due more to the severe financial and production crisis than to MST. On any event, by 1965 the consumer-goods coefficient is up to 9.0%* Such MST has been, alternatively, accompanied by the increasing importance of intermediate-product imports; in 1965, they amount to 52% of total imports. Fuel imports, on the other,hand, have reduced their importance as a consequence of the growing petroleum exploitation. Capital goods' imports have remained the same between 1948 an 1965, although they have suffered sharp falls as a result of the fluctuations of GDP and the deflationary policies (see the case study). It is quite plausible to think that variations were caused by the availability of foreign exchange, the sacrifice of the rate of growth, and the gfowing restrictiveness of the market.

The MST process in Colombia, as seen in the reduction of the consumer goods coefficient, is astonishing. Both durable and non-durable consumer goods' imports have been sharply and consistently reduced from 1947 to 196 Overall they amounted to 30% in 1947-49 and only to 11.1% in 1965. This extraordinary substitution is explained by the fact that Colombia is a late-starter in the MST industrialisation model. As a consequence of the production of consumer goods, intermediate goods imports and, to a lesser extent capital goods' imports have increased sustainedly their relative importance. Capital goods have fluctuated perhaps closely with the trend of the GM. Fuels have never amounted to a significant proportion of Colombia's imports; and, on any event, this small fraction was further reduced (to 0.9% in 1965).

Mexico's reduction of consumer goods imports is also very impressive. The coefficient was sustainedly decreased from 19.0 to 12.1% between 1947 and 1960. Both the durable and non-durable proportion of imports was reduced. The fact reflected itself in an equally high increase of the proportion of intermediate goods which moved from 33% in 1947 - 49 to 50% in 1963. However, there also appears to be some intermediate-product substitution within the category. Non-metallic intermediate goods have increased sharply, while metallic imports have tended to stabilise their proportion. Capital goods' imports have also tended to decline, but here the reason may again be a shortage of foreign exchange.

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*The 1964-65 increase is a result of the more liberal attitude towards imported consumer goods adopted by the military take-over.

TABLE II

The Import Structure of Goods (% - 1965-1948)[a]

ARGENTINA

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Year	Consumer Goods			Fuels	R. M. and Intermediate Produc			Constr.	Capital Goods to:				Various
	Non-Dur	Durable	Total		Metallic	Non-Metallic	Total	Materials	Agriculture	Industry	Transp	Total	
1948-52	7.6	5.0	12.6	14.6	12.8	30.6	43.4	6.5	2.5	12.8	7.0	22.3	0.5
1950	8.8	4.3	13.1	12.9	12.6	31.4	44.0	7.8	3.2	13.1	5.5	21.8	0.4
1955	6.3	2.9	9.2	17.7	17.8	32.1	49.9	4.1	3.7	9.5	5.6	18.8	0.3
1960	3.2	6.5	9.6	23.4	14.9	20.9	35.8	5.5	4.0	20.9	10.0	34.9	0.8
1961	4.0	5.7	9.7	10.2	17.5	23.3	40.8	2.6	2.8	18.9	13.9	35.6	1.1
1962	4.0	3.7	7.7	8.1	11.3	21.6	32.9	3.4	2.4	25.0	19.5	40.9	1.0
1963	4.8	3.1	7.9	7.3	9.3	26.8	36.1	5.4	1.6	23.9	16.6	42.1	1.2
1964	4.3	4.0	8.3	9.0	14.7	33.6	48.3	3.7	1.9	14.2	13.5	39.6	1.1
1965	5.0	4.0	9.0	10.0	17.0	35.0	52.0	4.0	1.2	10.6	11.0	22.8	1.2
							BRAZIL						
1948	9.8	7.5	17.3	13.0	6.9	23.5	30.4	-	-	-	-	39.3	-
1950	9.4	5.9	15.3	13.5	5.5	28.2	33.7	3.2	6.2	18.9	8.9	34.0	0.3
1955	7.4	118	9.2	21.0	6.3	31.5	37.8	3.3	3.3	15.7	9.5	28.5	0.2
1960	4.1	1.5	5.6	18.0	7.1	28.4	35.5	2.4	5.0	17.1	16.2	38.3	0.2
1961	4.5	1.7	6.2	17.2	7.5	29.2	36.7	3.8	3.9	21.1	10.8	35.8	0.3
1962	5.2	1.4	6.6	16.3	7.4	31.0	38.4	2.6	2.9	23.4	9.3	35.6	0.5
1963	5.6	1.8	7.4	16.3	9.6	32.2	41.8	3.4	2.6	19.5	8.6	30.7	0.4
1964	6.2	1.4	7.6	19.1	7.0	35.3	42.3	2.3	3.1	17.8	7.4	28.3	0.5
1965	6.3	1.4	7.7	20.0	10.0	36.0	46.0	2.3	3.0	15.1	5.4	23.5	0.5

CHILE

Year	Consumer Goods			Fuels	R. M. and Intermediate Produc.			Constr.	Capital Goods to:				Various
	Non Dur	Durable	Total		Mettalic	Non-Metallic	Total	Materials	Agriculture	Industry	Transp	Total	
1848-49	10.0	3.0	12.0	11.0	6.0	35.0	41.0	6.0	3.0	18.0	28.0	29.0	-
1950	9.8	2.3	12.1	10.4	5.1	38.3	43.4	6.7	1.3	19.4	6.4	27.1	0.3
1955	10.4	2.8	13.2	13.8	3.4	37.3	4017	3.5	4.7	14.6	9.4	28.7	0.1
1960	11.6	4.1	15.7	10.5	3.4	29.3	32.7	3.8	2.4	21.3	13.2	36.9	0.4
1961	11.4	4.4	15.8	6.1	3.5	29.2	32.7	5.5	3.0	22.0	12.5	39.5	0.4
1962	12.7	3.8	16.5	5.8	2.8	29.4	32.2	5.4	2.7	23.8	13.2	39.7	0.4
1963	12.8	3.0	15.3	4.5	2.8	37.7	39.5	4.4	1.8	22.8	9.2	33.8	2.0
1964	10.9	2.6	13.5	4.7	3.1	35.5	38.6	6.4	1.5	24.3	10.1	35.9	0.9
1965	13.7	2.0	15.7	5.0	2,8	38.3	41.1	4.8	1.5	22.3	8.6	32.4	1.0

COLOMBIA

1947-49	-	-	30.0	3.0	-	-	23.0	5.4	-	-	-	38.5	-
1950	13.1	7.7	20.8	2.8	4.0	31.8	35.8	6.9	4.6	18.0	10.6	33.2	0.5
1955	10.0	7.1	17.1	3.7	4.2	27.2	31.4	7.8	5.6	22.4	11.4	39.4	0.6
1960	6.7	4.6	11.3	1.9	7.5	33.1	40.6	4.7	5.6	24.8	9.9	40.3	1.2
1961	8.4	8.5	16.9	1.7	6.4	31.4	37.8	5.1	4.9	23.8	8.5	37.2	1.3
1962	8.3	4.8	13.1	1.7	7.2	33.7	40.9	4.8	5.2	24.1	8.6	37.9	1.6
1963	8.5	3.7	12.2	1.8	7.8	33.6	41.4	4.1	4.4	24.3	10.1	38.8	1.7
1964	8.2	3.7	14.9	1.1	7.0	32.5	39.5	5.1	4.6	26.8	9.9	40.8	1.6
1965	7.2	3.9	11.1	0.9	5.0	33.1	38.1	4.8	5.3	29.4	8.5	43.2	2.1

X

PERU

Year	Consumer Goods			Fuels	R.M. and Intermediate Products			Construction Materials	Capital Goods to:				Various
	Non-Dur	Durable	Total		Metallic	Non-Metallic	Total		Agricul.	Industry	Transp.	Total	
1947-49	19.0	3.0	22.0	2.0	4.0	29.0	33.0	5.0	6.0	24.0	9.0	39.0	-
1950	19.6	7.7	27.0	2.0	3.5	26.7	30.2	5.6	4.0	16.5	13.1	33.6	1.3
1955	17.5	9.0	26.5	3.1	4.8	24.9	2917	8.0	3.6	20..7	7.6	31.4	1.3
1960	14.5	8.2	22.7	4.6	5.5	26.6	32.1	4.6	2.8	21.1	11.8	35.6	0.4
1961	13.6	9.0	22.6	3.3	5.1	25.6	30.7	5.3	2.9	22.5	12.3	37.7	0.4
1962	13.4	8.3	21.7	3.1	4.5	23.6	28.1	5.9	2.6	26.4	11.9	40.9	0.3
1963	15.3	9.7	25.0	2.8	4.4	22.6	27.0	4.4	2.6	24.9	12.9	40.4	0.4
1964	15.2	10.6	25.8	3.1	4.8	24.6	29.2	4.9	2.6	22.8	11.1	36.5	0.5
1965	14.3	9.8	24.1	3.2	5.0	25.1	30.1	6.3	1.9	23.2	10.8	35.9	0.5

URUGUAY

1947-49	-	-	36.7	9.3	-	-	22.6	-	-	-	-	31.4	-
1950	17.5	6.6	24.1	7.0	6.6	31.1	37.7	4.9	3.0	14.4	7.2	24.6	1.7
1955	10.6	3.6	14.2	15.7	7.0	34.5	41.5	3.0	1.4	18.5	5.4	25.3	-
1960	11.3	3.7	16.0	18.3	9.2	31.9	41.1	2.4	1.3	15.1	7.8	24.2	1.0
1961	13.9	5.3	19.2	11.4	4.7	30.2	34.9	2.5	1.3	12.9	12.7	26.9	5.1
1962	15.2	3.8	19.0	12.3	5.1	25.6	30.6	2.8	1.4	15.2	15.3	32.9	2.4
1963	18.9	2.1	21.0	12.9	5.2	21.6	26.8	3.3	1.2	13.9	12.9	28.0	8.0
1964	15.7	1.6	17.3	16.8	6.1	31.0	37.1	3.5	0.9	14.9	7.9	23.7	1.6

- continued -

MEXICO

Year	Consumer Goods			Fuels	R. M. and Intermediate Products			Constr.	Capital Goods to :				
	Non-Dur	Durable	Total		Metallic	Non-Metallic	Total	Materials	Agricul.	Industry	Transp	Total	Various
1947-49	11.0	8.0	19.0	4.0	5.0	28.0	33.0	6.0	4.0	24.0	10.0	38.0	-
1950	8.3	7.5	15.8	4.1	10.5	28.9	39.4	7.8	4.6	23.0	4.5	40.2	0.5
1955	7.0	8.4	15.4	7.6	10.4	26.8	37.2	5.9	5.0	22.7	5.7	33.4	0.2
1960	6.6	5.5	12.1	4.1	11.4	33.0	44.4	4.4	3.2	24.0	7.5	39.1	0.3
1961	6.8	6.0	12.8	3.6	14.2	30.7	44.9	3.7	2.9	24.5	3.8	34.9	3.8
1962	7.6	5.6	13.2	2.5	14.5	33.0	47.5	4.1	1.8	22.5	4.3	32.7	4.1
1963	6.9	5.4	12.3	2.5	14.1	35.9	50.0	3.5	2.3	21.4	3.5	27.3	4.4
1964	5.5	4.7	10.2	1.8	-	-	43.8	2.5	3.6	30.7	7.1	41.4	0.3
1965	4.6	5.4	10.0	2.1	-	-	49.7	2.0	3.3	32.7	5.3	38.0	0.0

a) Sourde: Economic Surveys for Latin America, 1967, 1956 and 1952, U.N., New York.

parison with international price trends and their integration into the wholesale and cost of living indices, once their relative weight is determied would presumably reveal the real role MST has played in the inflationary process. In so far as much quantitative information is unavailable the structuralist argument remains inconclusive. This is not to say that the particular theoretical model appears unconvincing - ana analysis of the structure of the domestic market indeed reveals reason to expect inflation and induced financial instability - but merely that the verification and the empirical process remains to be done.

However, so as not to end this section with such inconclusiveness, a modest and indirect test was devised to try to establish a statistical relationship between MST and inflation. Annual changes in the relative weight of some import groups within the import structure. Consumer goods and intermediate products where visible MST was present in the majority of cases were reduced to time series and correlated linearly to changes in the cost of living (see Table III).* Surprisingly enough in the important cases the correlation was high and of the correct sign. That is, as industrialisation advanced MST was reflected in a drop in the relative weight of non-durable and durable consumer-goods imports; and the fact was negatively and significantly correlated to annual increases in prices. Alternatively, MST was reflected in an increase in the relative weight of raw-material and intermediate-product imports; and the fact was positively and significantly correlated to annual increases in prices. There are, of course, exceptions to this tentative test.

The best correlations were found in Brazil, (-0.68 and + 0.86), Colombia (-0.69 and +0.76), Mexico (-0.92 and +0.83) and only less so in Argentina (-0.84 and +0.99). In Argentina, although the total correlations are significant, there were no correlations in the cases of consumer durable imports and hon-metallic intermediate-product imports. This does not mean that there was no MST in durable-consumer imports. As it may be seen in Table II, the first group only amounted to 4% of total imports by 1955, and the second absorbed 35% of total imports in the same year. What this means is that MST of durable consumer goods had taken its significant step before the 1950's while non-metallic imports were so high already by the same years that they could not be increased further without sacrificing what perhaps were essential import items in the other groups or that import controls were introduced as a consequence of the external disequilibrium.

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*Individual wholesale price indices for each of the groups of imported goods would have been much preferable; unfortunately compatible domestic price indices for these classification or sufficiently long series were not found.

Uruguay also - despite its small domestic market - presents con
able MST in the consumer goods sector. Although in this case the re
of the proportion of imports is with respect to durable consumer goo
while non-durables, essential for Uruguay's economy, have tended to r
tain their proportion. Moreover, by the mid-1960's it is true that
imports have also been reduced because of the financial crisis the e
is experiencing. Still, in so far as MST has advanced in this secto
proportion of fuel and intermediate product imports has tended to cl
especially in those years when the foreign exchange bottleneck was l
severe. On any event, by 1964 these two categories add up to more t
of total imports. The rigidity in these items is reflected in the f
the proportion of capital goods' imports have fluctuated with a tend
decline.

Chile and Peru do not present any sharp changes in the structur
imports. In Peru there have hardly been any changes in the proporti
intermediate and capital goods' imports; in any case, both have ten
decrease. This is reflected in a slight increase of the proportion
sumer goods. However, while it is true that the importance of durab
sumer goods' has increased considerably imports of non-durables have
weight*. The picture may be interpreted as a case where the MST pro
only beginning to take place and where the expansion of the capacity
port hides any visible MST. Chile's case, although similar in quanti
terms, is a different one. Presumably here industrialisation took p
before the 1950's. That is, the durable consumer-goods coefficient
ready 3.0% in 1948 and 2.0% in 1965. Non-durables have increased the
proportion because they represent essential food imports. On the oth
hand, if no MST has been taking place in consumer goods and intermedi
goods imports have remained more or less the same, fuel imports have
importance and capital goods' have increased slightly. The first may
count for some substitution and the second for the maintenance of the
pacity in the industrial sector.

However much these changes in the composition of imports tell a
MST, they say nothing about the inflationary nature of the prodess.
information, as it was said, could be used to construct the relevant
dustrial production and price series where MST takes place. Their i

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*The fall in the import of foodstffs could be also related to the re
distribution of income (see section e and case study).

In Peru and Uruguay, as expected, the correlations were only occasional. MST, within the import structure, in Peru is only visible in non-durable consumer goods and in the fact that the importance of metallic intermediate products has increased. In Uruguay no reduction of non-durable consumer goods could be expected as the country is dependent on imported foodstuffs; but the reduction in the relative importance of durable consumer imports was somewhat related to inflation (-052). Moreover, the limited scope of industrialisation and the fact that the economy was stagnant from 1960 to 1965 is reflected in a stagnation of the importance of intermediate-product imports. Nonetheless, this last group absorbed 37% of total imports in 1964 (See again Table II).

In Chile no significant correlations were found, and those found were of the wrong sign. Inflation was, of course, very strong, but industrialisation as reflected on the import structure and within 1948-1965 was very weak. The positive coefficient of 0.67 for consumer non-durable imports merely indicates that Chile's need for imported foodstuffs has been increasing together with inflation. The fact that there was a correlation of also the wrong sign (-0.66) for metallic-intermediate product imports is not very significant. Because its weight on the import structure (3 to 6%) has always been low (See Table II). Two hypothesis, however, could be advanced: (1) there was MST in this category; or (2) the weak industrialisation process has not been able to afford such items.

Returning to the significant correlations, the indirectness of the test should be stressed. A more appropriate test ought to be the direct correlation between the domestic production of import substitutes for consumer goods and their wholesale price indices. With respect to the increasing derived demand for intermediate-product imports the 'indirectness' is quite obvious. The inflationary impact of this demand comes via the problems it may cause in the balance of payments, the exchange rate, and tariffs and controls.

TABLE III

Correlation Coefficients (r) and Standard Error (s e) for the Cost of Living Index and Changes in the relative weight of import groups in the import structure.

Country	Consumer Goods						Raw Materials and Intermediate Products					
	Non-Durable		Durable		Total		Metallic		Non-Metallic		T o t a l	
	r	s e	r	s e	r	s e	r	s e	r	s e	r	s e
Argentina (1948-58)	-0.89	0.07	-	-	-0.84	0.15	0.95	0.04	-0.81	-	0.99[a]	0.01
Brazil (1948-62)	-0.66	0.21	-0.66	0.21	-0.68	0.20	0.71[b]	0.16	0.32[b]	0.10	0.86[b]	0.08
Chile (1948-65)	0.67	-	-	-	-	-	-0.66	-	-	-	-	-
Colombia (1950-65)	-0.66	0.19	-0.56	0.23	-0.74[c]	0.15	0.91[d]	0.66	0.40[d]	0.32	0.76[d]	0.15
Peru (1948-65)	-0.83	0.09	-	-	-	-	0.61	0.20	-	-	-	-
Uruguay (1950-64)	-	-	-0.52	0.26	-	-	-	-	-	-	-	-
Mexico (1948-65)	-0.83	0.10	-0.85	0.08	-0.92	0.05	0.85[e]	0.10	0.66	0.20	+0.83	0.10

Source: See Table III

d) Infrastructure (Public Expenditure and Income).

Perhaps within the structuralist inflationary thesis the cause of inflation that has been dealt with less is the one that relates to what may initially be called infrastructure bottlenecks. In many of the best known structuralist models - for example with Dr. Prebisch, professor Seers, Dr. Sunkel, etc - one only reads that, amongother structural factors, inflation may be accelerated by an inelastic supply of infrastructure works and services, especially assuming growth.* Sunkel puts it in the following words: 'The industrialisation process has been shown to mean largely a process of integration of a domestic market economy of a fractured nature. It requires there fore a network of roads, railways, energy and communications systems and other forms of basic social capital... as industrialisation proceeds, bottlenecks may develop in these sectors and the flow of production will be obsta culised and inputs may become more expensive... This picture of rigid and outdated economic and institutional structures incapable of responding to the demands of a dynamic industrial sector and a growing urban population is probably the main explanatory element of the sectorial distortions, inflationary pressures, balnnce of payments deficits and social tensions, that tend to appear along the process of transformation of the economy' (1).

Insufficient attention has been given to the study of the relationships between the structural functioning of the whole Latin-American public apparatus - with emphasis on infrastructure - and the inflationary spiral. This is not to say that monetarists have not looked into the matter. They have but in a non-structural manner. That is, from an orthodox point of view monetarists consider that budget deficits, deficit financing, anddebt managing are one of the main, if not the first, causes of inflation. Structuralists, on the other hand, and with important qualifications, admit that this is a propagating or secondary cause of inflation; but insist that the main cause of inflation within the public sector lies not in the process of deficit financing but in the 'structural reasons' - the behaviour of public investment and public incomes - that result in budget deficits. In the analysis of these 'structural reasons' lies the link between budget deficits and the behaviour of a nation's infrastructure. However, it appears that the link is only implicit in the structuralist argument. Thus the intention of this work is to establish the link in an explicit fashion that will further differentiate the monetarist and structuralist positions and that will enable one to see, however superficially, the role of the public sector through

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*It is usually said that through population growth, MST industrialisation, wage and salary demands pressure is exerted an infrastructure and inflationary tottl necks appear; something which depends on the trend of public investment.

infrastructure in inflation. However, before going into this proposition it is convenient to say something about the conventional theoretical background, terminology, and the limitations the work will find.

The role of infrastructure bottlenecks in inflation, or alternatively, the aim of public investment in reaching long-run equilibrium may be said to be a corollary of Keynesian economics. In contrast to the more orthodox public finances of the XIX century, which aimed at the lowest possible level of state expenditure and at minimum interference with the free play of private interests, recent public finances are characterised by active state participation in the economy with a view to weakening violent cyclical fulctuations, maintaining the level of employment and, what structuralists emphasise, promoting the growth of income, correcting maladjustments in certain parts of the economic mechanism and even producing a distribution of national income in harmony with some set of social principles. These objectives have been accompanied by an enormous increase in state expenditure, revenues, and public debt; something which is a characteristic of most countries today, specially those which are highly industrialised. With respect to Monetarists and Structuralists, they broadly agree with these objectives.

Relatively speaking, advanced countries have been more successful in these objectives and use of policy than the Latin-American nations. The lack of success may be interpreted in Latin America in terms of the controversy and of the persistent disequilibrium. In eclectic terms it is said that in Latin America modifications and reforms in taxation systems and the structure of expenditure are in 'their formative years' and have not been established in accordance with plans formulated for long-term requirements, but rather have been carried out as emergency measures to meet changing conditions in the economy. The general idea is that governments, apart from social or political behaviour, have been obliged to undertake the coonstruction of railways, highways, ports, electric energy plants, and irrigation words, plus other subsidies, as well as expenditure on health, education, research, and technological training, plus agrarian and industrial undertakings, and the protection of the domestic economy from trends or fluctuations in the external sector. But for structuralists the role of the state in promcting conditions favourable to growth is not restricted only to these expenditures. Its functions are even more important when considered from the angle of the need to increase national savings and to channel investment towards productive actitities. 'The most suitable investment, writes ECLA, from the aspect of the overall economy does not always coincide with the interests or inclinations of the private investor

in countries where consumption has absorbed and tends to absorb a growing proportion of income, where an exaggerated propensity for luxury consumption or for non-production investment exists, or where a substantial share of total savings usually immigrates abroad' (2). Fiscal measures are thought to be among the most suitable, if not the best, instruments for accomplishing productive and social aims. The fact has created the need to obtain capital and credit for specific private and public activities, particularly in agriculture and industry, which have no other satisfactory financial resources than those of the state. Hence the pressure on State expenditure has not only come from traditional demands but from growth requirements. Moreover, a substantial additional burden for the government of the inflationary countries has been the policy of maintaining relative low prices for essential goods and for certain goods and services of prime necessity, such as fuels, transports, and some raw materials required for consumer industries. This has been the case in Argentina, Chile, Brazil and Mexico. In some cases these subsidies, have been absorbing increasing proportions of the budget, as compared with smaller increases on current expenditure on administration and public investment.

Stating demands on public expenditure in these terms, however, shows different policy thinking between structuralists and monetarists. The latter agree to the use of public expenditure within the framework of orthodox fiscal and monetary policies but admit lesser state interference in the form of direct controls or certain types of public investment. Attention to such a controversy was given in another place; here what interests us with respect to inflation is the fact that monetarists, in a crude generalisation only admit that public expenditure that can be 'afforded' in fiscal and monetary-equilibrium terms and regard budget deficits and debt financing as a source of inflation. Structuralists, also an very crude terms, would insist on the need to go ahead with public investment as a means of reducing infrastructure bottlenecks and hence reducing cost-price inflation in the long-run. Whether such an approach is permissive in an inflationary sense would depend on the short and medium term precautions that are taken by monetary and budgetary policy to finance expenditures in a more-or-less inflationary way.

The problem is related to the broader one of the strudture of taxation in Latin America. A rapid solution for meeting the growing requirements of the state appears to be the expansion of the tax system. A first limitation is the low level of per capita income and the impossibility or undesirability of reducing the consumption capacity of broader sectors of the population. With high-income groups the danger of the incidence of a very high taxation is to discourage private investment or stimulate the outflow of capital, as well as discourage private investment, although this has not been proven. Another relative limitation is the inadequate technical level of the public administration for the efficient handling of fiscal resources and expenditures as well as eliminating corruption. The post-war fiscal experience in Latin America inclines one to think this is a long-run obstacle.

The result of the trends in public expenditure and incomes are insufficient public savings to cover a broad set of government requirements. Such an outcome reflects itself on budget deficits* and on the different methods of deficit financing. The obvious point is that the pressure on public expenditure has contributed on a large scale - together with the passivity of the taxation structure - to the inflation of the region. It is convenient to remember, however, that monetarists concentrate on the existence of budget deficits as an important cause in the inflationary spiral, while structuralists are interestsd on the processes that created such deficits and such inflationary financing and, paradoxically, an infrastructure analysis which creates the need to stimulate public investment if inflation is to be stopped some day. Professor Grunwald puts it in the following terms**:

> 'The other category of structural factors has to do with the instability of government revenues in the face of the figidity of government expenditures... current expenditures are relatively rigid consisting principally of salaries and social security contributions. If, for some reason, public employment cannot be reduced significantly, it is clear that when revenues drop to lower income, the only item that can be effectively curtailed is public investments. The first factor, the curtailing of public investments, will be detrimental to economic development; the second, deficit financing, will create inflationary pressures.

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* With respect to central government finances it was seen that considerable budget deficits persist in the inflationary countries (See chapter 2).

** The above quotation should be understood with precautions: it applies to Chile.

> Yet institutional obstacles make it difficult to expand public revenues. Tax collection is deficient and the government relies heavily upon indirect taxation, which is relatively easy to administer. This makes the tax system less progressive than it could be... the indirect tax structure is in itself inflationary because whenever revenues have to be increased, recourse to this tax system will have a direct effect on increasing the price level' (3).

With this introduction in mind the next step it to establish what was called the explicit thesis behind the structuralist generalisations on the role of infrastructure bottlenecks in inflation.

(1)A Theoretical proposition and its limitations

It is useful to start with a general and somewaht arbitrary summary of the monetarist position:

a) The fact that chronic and significant budget deficits persist in these Latin-American countries means that public expenditure has exceeded substantially public incomes.

b) Recourse has been taken to inflationary deficit-financing devises.

c) Deficit financing may be executed through foreign debt, domestic debt of the printing of money. With respect to domestic debt, the floating of public debt, let alone the creation of money, increases the liquidity of the monetary system and leads to new credit formation. Assuming a given behaviour in the velocity of circulation, bank rate policy, liquidity and cash ratio controls, the characteristics of the capital market, and so on, the result may well be an expansion in the supply of money and inflation.

d) The initial cure is to reduce dificit financing and to balance budgets.

The implicit structuralist position is better understood from an unorthodox angle:

a) Fiscal policy and inflation, in general and infrastructure and budget deficits, in particular, should not be analysed outside the process of growth. This means evaluating the role of public investment, a growth factor which perhaps is inflationary in the short-run and as stabilising policy measure in the long-run.

b) Nonetheless, the structuralist argument implies vaguely - aside from the existence of budget deficits - that the perseverance of infrastructural bottlenecks reflects itself in the short-run on higher costs, dis-economies of scale, public subsidies and so on, something which contributes substantially to inflation.

c) The following extremist proposition may be deduced. A fall in the rate of public investment will lead to further inflation in the setting of a country undergoing industrialisation. Monetarists, explicitly, recommend a reduction in public expenditure when budget deficits are chronic.

d) Coming to the fiscal system, structuralists would stress the existence of an inelastic tax structure and inadequate budgetary expenditure, and hence budget deficits; and, cuts in public investment, infrastructure bottlenecks, and hence inflation.

e) The cure does not lie in cutting budget deficits per se but in modifying the structure of public expenditure and income. The analysis could be undertaken in the form of the fiscal reform proposed by structuralists. This section, however, will concentrate on how budget deficits arise, how public investment explains the existence of the reduction of infrastructure bottlenecks and to what extent the variables involved are reflected in price movements.

Said in the above terms the proposition, both in theoretical implications and because of empirical limitations, lies outside the scope of this work. Theoretically wise the generalisations and simplifications are too wide; one would have to define the sort of public sector one is referring to; the 'dividing line' between the public sector and the private sector is a controversial issue. Furthermore, a study of the overall public sector in many Latin-American countries will meet with serious if not insuperable statistical and classification limitations.

The first thing to clarify is that, in the context of the structuralist argument, one is referring to the setting of a 'mixed-economy semi-industrialised country', where, in some cases, private and public activities can be easily separated and where, in other, private and public enterpris es appear in a mixed fashion. A simple way of clarifying such different or mingling functions may be achieved by defining the term infrastructure. Terms such as infrastructure, social overhead capital, public works, or total public investment within the overall government sector are usually employed as synonims. Infrastructure* in a restricted sense, means the

*For a discussion on the subject, with reference to UDC, see R. Nurkse and A. O. Hirschman (4).

foundation underlying a nation's economy (transportation and communication systems, power facilities, and other public services) upon which the degree of economic activity depends (industry, agriculture and trade)..It may include such intangible assets as the educational level, social attitudes, industrial skills, and administrative experience. Because of its essential nature it is discussed in connection with the growth problems of UDC. The building of the infrastructure, which generally involves high initial costs and a very long payoff period, is mostly carried out by the public sector (although in some special cases there might be private intervention). This definition, however, is too restricted if one wants to evaluate the overall role of public investment in Latin-America; a role that in many cases goes beyond the traditional state intervention in the form of public services. Under such an assumption, infrastructure would have to include all the projects adopted by the government (and the participation of the government in private undertakings) that are not undertaken (or are insufficiently undertaken) by citizens or private enterprises and that are essential for the growth and other economic objectives of the country.

This global definition of public investment would, of course, have to include all other public sector current expenditure and its counterpoint; fiscal and non fiscal revenues. The main serious limitation is that a system for classifying within one account the overall transactions of the public sector does not exist, at least for our Latin-American countries and the period of study.** Moreover, the poverty of the statistical material and the nature of the national classification criteria hinder comparability between the different countries. Let us then point out the limitations we sense, grouping them and starting with the government sector and working up towards the overall public sector. The exercise may be significant because it is necessary to overcome such limitations if one is to understand how infrastructure botflenecks have - or have not- been met by different governments and how the existence of such cost inflation is being reduced or let to develop, Without such information, the structuralist thesis on the causes of inflation is vague and incomplete.

Limitations

a) The economic classification total government expenditure should include central government, local authorities, and municipalities. These consolidated accounts, in the case of international statistics are available for Brazil, Chile and Peru. Argentina's, Colombi'a's and Ecuador's presentations include the central govern-

*This is, a generalisation for the inflationary countries. Since the early 60's Chile has had consolidated accounts for fiscal and public sectors and Argentina Brazil and Mexico are working towards a consolidation. But in no case are there consolidated accounts for the 1946-65 period.

ment plus the expenditures of public or decentralised institutions, but do not include provincial expenditure. Mexico's accounts, for the greater part of the 1946-65 period, only include federal government expenditure. For these cases where public expenditure is incomplete ECLA (5) has estimated that the relative weight of provincial and municipal expenditure in government expenditure is around 22% in Argentina, 40% in Colombia, 18% in Mexico and 36% in Ecuador. Hence the figures that shall be used are short of about these percentages.

b) With respect to fiscal incomes the limitation is less serious. It is not exaggerated to claim that in Latin America the overwhelming collection of revenues is done by the central government.

c) The main problem is to incorporate to the government's fiscal accounts the expenditure and revenues of autonomous or semi-autonomous government agencies or mixed enterprises. The addition of both components would result in the public sector's total accounts. It is obvious that these 'autnnomous enterprises' are determinant in so far as infrastructure is concerned.*

d) With respect to public investment and infrastructure trends, the problem remains to aggregate the accounts into the fiscal system. When these enterprises mobilise non-fiscal financial resources - through the attraction of private savings or foreign loans - the effects on the economy from the fiscal point of view may not be measurable. Moreover, the ondes and the amount of their expenditure, as well as of their profits or deficits may not appear in the government's accounts. Sufficient data for this purpose were not available and, as a consequence, only those funds contributed by the government sector will be included (this time for most of the 50's, while in later years some figures are found for wider parts of the public sector, except for Mexico.

e) In summary (following ECLA) the increasing importance of autonomous enterprises - in the proportion of fiscal investment and as recipients of foreign credits - are creating problems to public administration, especially in the coordination of these activities

*They include enterprises of a commercial or industrial nature; housing institutions and public works; agencies that regulate production or the market for certain products; credit institutions; social security institutes, and so on. In general they have arisen and developed because their functions required operating, financing, administrative and accounting devices which are normally different from those used in fiscal administration or because certain governments may be prohibited from underdaking certain activities.

with those of the government sector. The knowledge and solution of these problems is determinant for the future of fiscal policy.

With the limitations - fiscal sistematisation and lack of proper date - the next step is to examine the thesis on inflationary bottlenecks. This comprises the study of how budget deficits appear (that is, the trends in public expenditure and revenue) and the trends in public investment. The first point is the structuralist answer to the monetarist argument that seeks 'the balancing of budgets' and does not probe deeper into the causes of such deficits, as it was seen in its proper place. The second part relates to how far public investment contributed to reduce infrastructure bottlenecks and hence inflation, in the context of growth.

(2) The behaviour of some fiscal indicators and inflation.*

With respect to monetarism, this study reached the conclusion that one cannot generalise in Latin America about therelationship between inflation and budget deficits.** Except for a high correlation in Brazil, and insignificant ones in Argentina and Colombia, there is insufficient evidence that budgetary deficits are an 'original'cause of inflation nor are they sufficiently related in a statistical sense to prices. In fact, negative correlations were found in Mexico and Chile; meaning that the higher the deficits the lower the pace of inflation. At best, following monetarism, it could be said that in those countries with large budget deficits (Brazil, Argentina, and Colombia only) the rate of inflation was higher and that, sometimes, years of very high inflation were preceeded by large deficits.

In Brazil it is fair to insist, however, that monetarists have a case. This may be seen apart from the large deficits, in the fact that current government expenditure has expanded significantly while, the capital formation of the government sector has stagnated from 1950 to 1966 and the total gross fixed capital formation of the public sector has declined.

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*This section will not include Uruguay, Bolivia and Paraguay. In all cases the date available was insufficient and disconnected. This is particularly infortunate, because, especially in Bolivia and Paraguay, monetarists believe that excessive current-administration expenditure was an original cause of inflation. See the works of Mr. Zondag and Mr. J. Pincus (6). In general terms the Uruguayan case, following ECLA is close to the Argentinian (7).

**Turn back to Chapter II, the section on budget deficits.

Brazil: Gross Current Expenditure (GCE) and Gross Capital Formation (GKF) of the Government sector and Gross Formation of Fixed Capital (GFFK) of the Public Sector as a % of G N P

Year	GCE	GKF	GFFK
1947	10.7	2.8	17.4
1948	11.8	3.8	16.2
1949	12.7	4.4	15.1
1950	12.7	4.6	13.4
1955	13.6	3.2	14.4
1960	15.5	5.3	16.7
1963	16.7	5.1	16.6
1966	14.2	4.9	12.9

Source: O. de Bulhões, The Brazilian economy in The Unilever Quarterly, Vol. 53, No. 298, 1968/9.

Monetarism implies that the rise in public expenditure carried a faulty economic policy that largely contributes to the inflation of the region. Structuralism, on the other hand, implies that expenditure increases are not as 'terrible' as mere budget deficits lead to believe; that one has to see how these budget deficits were created and what was the distribution of budgetary expenditure; and, that much depends on the structural trend of public revenues.

Public Expenditure and Public Revenue

Judging from the monetarist position and from budget deficits, it would have been expected that the public sector was making larger claims on the national product of these inflationary countries. Table I shows the relative relation between GNP and public expenditure and receipts for 1945-65.

Professor Maynard rightly says: 'The ratio of public expenditure to national product does not seem crucial in determining the extent to which countries suffered from inflation' Moreover, neither expenditure nor income rations appear 'too high' when compared to those of the United States, which ranges from 20 to 26% and in the advanced countries of Europe, where they range from about 25 to 45% (8)'. In the Latin-American group the public expenditure coefficient ragnes from 7% to 23% and the public income coefficien from 7 to 25%

Public Expenditure (E) and Public Receipts (R) as a % of GNP
(1945-1965)

Country		1945	1950	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina[a]	E	19	19[b]	19[b]	12	12	-	17	14	13	15	14	13	15	12
	R	-	14[b]	15[b]	7.4	7.4	-	8	7.3	10.7	15	10.2	9.4	9.7	10.0
Brazil[b]	E	16	19[b]	19[b]	-	16	16	15	13	20	21	23	24	23	-
	R	-	16[b]	22[b]	-	12	12	14	12	18	18	18	17	17	-
Chile[d]	E	17	15[b]	17[b]	15	14	15	15	-	-	19	21	18	18	21
	R	-	20[b]	19[b]	13	12	13	15	-	-	18	20	19	25	-
Colombia[e]	E	8	9[b]	12	12	9	7	7	7	-	-	-	10	9	8
R	R	-	8[b]	10	11	8	7	7	7	-	-	-	8	8	8
Peru[b]	E	13	15[b]	15[b]	11	13	19	19	18	16	-	-	19	19	-
	R	-	14[b]	14[b]	14	14	16	14	15	17	-	-	19	20	-
Mexico[g]	E	7	7.6[b]	8.4	8.0	8.5	7.8	7.7	7.4	7.9	7.9	8.1	8.4	8.4	8.4
	R	-	7.9[b]	7.8	8.7	8.1	7.4	6.9	7.0	7.1	6.9	7.2	7.6	7.7	8.3
Ecuador[h]	E	-	10[b]	7[b]	13	12	11	11	11	-	14	12	13	15	15
	R	-	8[b]	9[b]	11	10	12	11	11	-	11	10	11	13	12

Sources: Up to 1954 from ECLA's Government income and expenditure in Economic Survey of Latin America, 1956. From 1955 from The United Nations Statistical Yearbook, 1959 and 1966. Mexico from Economic Survey of Latin America, 1964-1966 and IFS, IMF, 1966.

a) Argentina: from 1945 to 1956 only the central government and from 1958 estimates of a consolidated nature.

b) 1951 and 1953, respectively.

c) Brazil: from 1945 to 1959 only federal and state governments and from 1960 estimates of a consolidated nature.

d) Chile: estimates of a consolidated nature, except for 1954-58 when only the government sector is included.

e) Colombia: only the central government, although some public enterprises are included for the whole period.

f) Peru: the whole government sector plus estimate of a consolidated nature.

g) Mexico: only the federal government

h) Ecuador: the whole government sector plus estimates of a consolidated nature.

Between the Latin-American countries themselves no relation can be established at this stage between higher rates of inflation and a higher public claim on GNP.* Only in Brazil and Chile, both very inflationary countries, is there a persistent increase in public expenditure as a percentage of GNP throughout the period (from 16 to 23% and from 17 to 21%, respectively). Part of such a considerable increase, however, is due to the inclusion of a greater number of public enterprises in the accounts by the late 50's. Peru is also a case where, public expenditure has increased its weight, while inflation has been moderate. But, in Colombia where the public expenditure ratio is very low (only 8% in 1965) and where no significant change has occurred in it, the rate of inflation is higher that that of the Peruvian inflation. It is the Argentinian case, the one that shows that no relationship can be simple established between inflation and relative public expenditure. In Argentina the coefficient has fallen dramatically from 19% in 1945 to 12% in 1965 and inflation has proceeded unperturbed. 'The cause of the (public) deficit, writes ECLA, has not arisen from higher expenditure... its level as a percentage of GNP was well below that of the early 60's. Declining income has produced the large deficit (9)'. On the contrary, in Ecuador - the least inflationary country of the group- the coefficient has increased substantially from 10% in 19 to 15% in 1965. Mexico's coefficient, as it is shown, is not much use because it only reflects the expenditure of the government sector. At best it shows a certain neutrality; as the rate of inflation has fallen, the weight of government expenditure has tended to remain constant. However if one includes public enterprises (it is estimated that the coefficient would then be 16%) then it may be said, that as public expenditure increased as a % of GNP the rate of inflation was reduced.

What seems clear for the majority of countries is that public receipts as a percentage of GNP tended to lag well behind the expenditure coefficient. Thus it would appear, with respect to these indicators, that public expenditure did not get out of hand so much and that the inelasticity of public revenues helps to explain the appearance of budget deficits. Here the cause for deficits lies in the 'structural' characteristics of the taxation system and/or in political priorities. The conclusion does not

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*A word of precaution, however: comparisons between countries are limited by the degree to which public enterprises are included more or less comprehensibly in consolidated accounts. It is impossible to know with exactitude how 'consolidated' the accounts really are (see footnotes of Table I). The indicators may only be taken as a very general guideline

apply to Mexico or to Chile. In the first case because government accounts are insufficient as a measure in public trends; and, in the second, because Chile's budgetary policy requires careful interpretation with respect to fluctuations in revenues from the external sector. Nonetheless, in general terms it may be said that there is not a relationship between the expenditure coefficient and different rates of inflation. Let us now turn to the growth rates of public expenditure and receipts.

The Growth of Public Expenditure and Receipts and Inflation

Looking at public expenditure at current prices in the most inflationary countries of the group would indicate almost explosive rates of growth. However, if the figures are deflated with the cost of living index the increase in expenditure appears restrained if not decreasing as in Argentina (See Table II). Again, one cannot say that the most inflationary countries are those where expenditure increased the most. Nor can it be said that as inflation proceeded, public expenditure grew; this is true for Brazil, Chile, and Colombia, but not for the rest.* First let us turn to the cases, where the monetarist argument does not seem to apply:

1.- In Argentina there has been a fall in public expenditure from 1958 and the rate of inflation has increased. This is particularly true during the 1958-60 stabilisation programme when, as it will be seen, public investment fell sharply and inflation continued. Public receipts, moreover, fell throuout the 50's, recovered during the early 60's and experienced serious setbacks afterwards. In these circumstances budget deficits have been persistently high. Thus, depending on the composition of expenditure, it is feasible that the structuralist argument was at work: as public expenditure was reduced and revenues lagged infrastructure bottlenecks were enhanced anc contributed to the inflationary spiral. The Mexican and Equatorian cases may also be interpreted in structuralist terms, but in the opposite direction. In Mexico both public expenditure and revenues grew relatively at fast rates, and the rate of inflation diminished. Presumably this would mean that over the long-run public investment has reduced infrastructure bottlenecks. Ecuador's expenditure was the fastest growing of the group and, although also growing revenues tended to lagg behind, still there was price stability in many years. Moreover, in both countries budget deficits tended to increase!

*Taking the whole period and not year to year relathionships.

TABLE II

Indices for the Real Growth of Public Expenditure (E), Public Revenues (R)[a] and the Cost of Living (P) and Budget Deficits (BD) as a % of Public Revenues 1951-65[b]

(1958=100)

Country		1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina	E	43	39	53	56	-	64	54	100	76	69	80	74	69	86	76
	R	80	71	70	73	-	72	66	100	131	103	128	99	91	104	114
	P	32	44	46	48	-	61	76	100	214	272	309	395	491	600	771
	BD	41	34	39	41	-	64	48	84	64	23	14	37	39	52	23
Brazil	E	76	-	91	-	-	109	97	100	84	130	149	166	244	174	-
	R	79	-	68	-	-	80	80	100	87	127	133	139	129	139	-
	P	28	-	42	-	-	73	87	100	137	185	256	390	684	1270	-
	BD	-4	-3	12	13	11	36	28	18	12	9	40	53	46	53	-
Chile	E	64	80	91	77	85	80	97	100	102	128	135	146	141	140	184
	R	79	89	92	78	94	86	102	100	114	125	130	138	135	139	174
	P	9	11	13	23	40	63	79	100	139	155	167	190	274	400	512
	BD	2	11	22	23	6	17	19	25	11	28	29	33	30	26	82
Colombia	E	62	67	81	92	142	104	115	100	128	182	136	214	155	141	148
	R	55	59	66	76	106	78	98	100	121	146	95	136	103	113	121
	P	63	61	66	72	71	76	87	100	107	111	121	124	164	192	199
	BD	-8	-7	-1	0	10	15	-4	-17	-13	3	20	29	24	2	5
Peru	E	49	54	67	71	106	110	97	100	94	94	164	127	119	141	144
	R	72	72	81	134	113	117	108	100	104	137	219	151	151	151	153
	P	64	68	74	78	82	86	93	100	113	122	131	138	148	164	191

Country		1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Mexico	E	67	84	72	88	88	97	108	100	101	114	120	134	148	17 9	185
	R	86	92	76	91	106	113	114	100	107	114	131	150	173	172	193
	P	59	68	66	70	81	86	89	100	102	108	109	110	111	114	118
	BD	-11	0	7	9	-9	-5	5	11	5	10	15	13	16	5	6
Ecuador	E	35	41	64	61	101	103	101	100	108	135	148	130	140	180	196
	R	33	37	51	49	79	84	103	100	97	101	105	106	116	147	150
	P	95	98	98	101	103	98	98	100	100	102	106	109	115	120	123
	BD	0	5	6	16	13	17	-1	-5	6	26	34	16	15	15	25

Sources: United Nationa Statistical Yearbook (1956-1967). and, for Mexico IFS=IMF, 1966.
a) The absolute series were initially deflated with the cost of living index.
b) Surplus on budgetary accounts (-).

2.- In the rest of the countries, however, a case may be made for moneta public expenditure and inflation expanded hand in hand. Still, Peru a border case. Her inflation was relatively milder and, although pu accounts expanded the fluctuations were so wide that they may have contributed to inflation. The same is true for Colombia with more i flation and a larger lagg in revenues. In Brazil and Chile public a counts expanded fastly and budget deficits increased noticeably, and these countries are the most inflationary. However, Chile's accounts suf ed a serious setback in 1953-1956 and Brazil's revenues have lagged behin expenditure consistently.

It is useful to insist in these trends looking now at annual changes the variables (Table III):

1.- In none of the countries is it possible to distinguish a year to yea relationship between the four variables. Within the first group, ho ever, in Argentina it is true that the rate of inflation has increas the more the drops in expenditure and revenue, while budget deficits are persistently high. In Mexico one can see that before 1959 publi accounts fluctuated, had sharp falls, there were years of surplus an inflation was faster and after, the opposite is very much present.

2.- In the countries where the monetarist argument is more present, for the sake of a 'structuralist position', several points can be made. In Colombia two periods will be distinguished: from 1952 to 1960 public accounts expanded fastly (with the exception of 1956 and 1958 and the rate of inflation was an average milder than in the next per (1960-65) when these accounts contracted. In Chile it is interestin to see that the years of high inflation - i.e. 1954, 1956, 1963, 196 were years when expenditure and revenues fell.

3.- Linear regression analysis was tried between annual changes in publi expenditure and revenue and the cost of living index (see below). Th correlation coefficients, however, were not significant or simple no present. The only case where there was a statistical relationship between the three variables is Argentina. It appears that increases in expenditure were associated with increases in prices (0.68). Thi is very misleading for two reasons: (1) it also appears that the hi er the revenue the more the inflation (0.72); and (2) public expend ture has decreased in Argentina, as it has been seen.

Annual Percentual Changes in Public Expenditure (E), Public Revenues (R), Changes in the Cost of Living lagged for the next year, and budget Deficits (BD) as a % of Public Revenue (1951 - 1965)

Country		1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Argentina	E	-	-9	36	6	-	14	-26	85	-24	-9	16	-7	-7	25	-12
	R	-	-11	-1	4	-	-1	-8	51	31	-21	24	-23	-8	14	10
	P	-	5	4	13	-	41	32	114	27	14	38	24	22	29	32
	BD	-	34	39	41	-	64	48	84	64	23	14	37	39	52	23
Brqzil	E	-	-	20	-	-	20	-11	3	-16	55	15	11	47	-29	-
	R	-	-	-14	-	-	18	0	25	-13	46	5	5	-7	8	-
	P	-	-	42	-	-	74	15	37	35	38	52	75	85	61	-
	BD	-	-	12	-	-	36	28	18	12	9	40	53	46	53	-
Chile	E	-	25	14	-15	10	-6	21	3	2	25	5	8	-3	-1	31
	R	-	13	3	-15	21	-9	18	-2	14	10	4	6	-2	3	25
	P	-	18	77	74	58	25	27	39	12	8	14	45	46	28	23
	BD	-	11	22	23	6	17	19	25	11	28	29	33	30	26	32
Colombia	E	-	8	21	13	54	-23	6	-15	28	42	-25	57	-28	-9	5
	R	-	7	12	15	38	-24	26	2	21	21	-35	43	-24	11	7
	P	-	8	9	-1.4	7	14	7	4	6	9	3	32	17	4	20
	BD	-	-7	-1	0	10	15	-4	-17	-13	3	20	29	24	2	5
Peru	E	-	10	24	6	49	4	-12	3	-6	5	66	-23	-6	18	2
	R	-	0	13	65	-16	6	-8	-8	4	32	60	-31	0	0	1
	P	-	9	5	5	5	8	8	13	8	7	5	7	16	9	9
	BD	-	0	-.9	-29	25	25	19	34	31	-6	-	-	9	23	23

Country		1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Mexico	E	25	-14	22	0	10	11	-7	1	13	5	12	10	21	3
	R	7	-17	20	16	7	1	-12	7	7	15	15	15	-1	12
	P	-3	6	16	4	6	12	2	6	1	1	1	3	4	4
	BD	0	7	9	-9	-5	5	11	5	10	15	13	16	5	4
Ecuador	E	17	56	5	55	2	1	-4	8	25	10	-12	8	29	9
	R	12	38	-4	61	6	11	0	3	4	4	1	9	27	2
	P	0	3	2	-5	0	2	0	3	2	4	3	6	3	6
	BD	5	6	16	13	17	-1	-5	6	26	34	16	15	15	25

Source: See Table II

Correlation Coefficients (r) and Standard error (se) for annual changes in Public Expenditure (E) and in Public Revenues (R) with annual changes in the cost of living (P) (1951-65)[a]

Country	E		R	
	r	se	r	se
Argentina	0.68	0.15	0.72	0.13
Brazil	+0.33	0.28	-0.01	+0.31
Chile	-0.30	0.23	-0.38	0.23
Colombia	0.26	0.25	0.17	0.26
Peru	-0.36	0.23	-0.39	0.23
Mexico	+0.01	0.27	0.06	0.27
Ecuador	-0.36	0.23	-0.55	0.18

Source: See Table III

a) Prices are for year P+1 so as to allow for a one year lag

The inconclusiveness of the above comparisons based on Tables II and III (although they go a long way in showing that arbitrary expansions in public expenditure are not so present in Latin America's inflation as one would expect from the monetarist argument) may be a consequence of dealing with aggregate expenditure. With respect to inflation much depends on the kind of expenditure the public sector undertook; whether it was an inflationary current expenditure or on investment projects.

The Distribution of Public Expenditure.

The different components of public expenditure, according to the economic classification, can be divided into current expenditure, transfer payments, and public investment.* A relative growth in current expenditure, especially if financed by a deficit, represents a consumption of an inflationary nature. Transfer payments do not constitute an element of final consumption by the administration but a shift of purchasing power to other sectors of the economy. Nonetheless, to a considerable extent they represent consumption in the form of budgetary contributions to provincial governments and municipalities, payments of interest on public debt, con-

*For a discussion of the limitations in the criteria used in the economic classification and in working in aggregate terms terms see the work by ECLA quoted (10).

contributions to social security institutions, welfare assistance, pensions, sundries, and subsidies directly paid by the Treasury.' Transfer payments however, accrue to public institutions and autonomous enterprises which spent part of such grants on investment. ECLA writes: 'The grouping of these disbursements under this heading is justified because, given the autonomy in expenditure enjoyed by such institutions, no prior assessment can be made either by the shares to be used in consumption and for investment respectively, or of the composition of such expenditure. Any consolidation of the public sector's accounts would have to make this distinction, and the various items would have to be grouped according to the final destination of the expenditure (11)'. Without this knowledge the assessment of the overall role of the public sector in contributing over the short-run to inflationary forces or in the long-run to reducing infrastructure bottlenecks can only be partial and misleading.

Hence the part of expenditure under public investment is the one that on aggregate may explain the non-inflationary policy of governments and justify the different uses of deficit financing. In so far as public investment represents a net increase in the production capital, it results in growth and perhaps stability. It also exerts influence by providing the economy with public works which in addition to their own contribution to the expansion of production and revenue, also provide an incentive to private investment. The ideal system to assess the productive share of public investment would be to brake it down according to its nature and final purpose. A distinction should be made between direct and indirect investment The former relates to works carried out by the public sector, while the latter includes loans to the private sector for purposes of real asset formation. A distinction should also be made between real investment and financial investment. The first one represents the purchase of new assets and the second the purchase of previously produced assets. In most cases in Latin America, however, it is not possible except for recent years, to classify public investment and arrive to real investment. In order to appraise the nature of investment in relation to inflation and growth, it is very necessary to apply these classification criteria - or others - to the consolidated public investment. Moreover, the means would provide the basis for academic comparisons between countries. In the meantime, one has to content oneself with aggregate figures which scarcely provide more than the broad outlines of public expenditure and, in consequence, only very few conclusions may be derived in assessing the inflationary or non-inflationary and growth roles of the public sector.

Let us then turn to the aggregate distribution of expenditure (Table IV) and try to follow the initial classification between the structuralist and monetarist cases:

1.- In Argentina, again, it can be seen that inflation has been accompanied by a fall in the proportion of investment expenditure. Consequently, current expenditure has gained enormous weight. Transfer payments are not only neutral but far 'too low'*. 'In fact, writes professor Maynard, of course, the increase in the 'ordinary' expenditure proportion in Argentina and Chile was the consequence of deliberate, if unsuccessful, anti-inflationary policies pursued by these countries, the main plank of which was a cut in public investment' (13). In Mexico, on the other hand, public investment gained weight until 1958 and inflation was milder and grew slower (afterwards, the decline is only apparent, as we shall see, since the majority of public investment tended to be channeled through the autonomous public enterprises). In Ecuador one cannot make of it a case for structuralism any more since the share of investment declined!

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*Transfer accounts are not much use for our purpose, since there is a continous re-classification of accounts between current and transfer payments And, what is more important, ECLA writes that the predominant trend during the 50's was towards a relative reduction in the interest paid on public debt (12). The reasons why the financial burden originating in government debt, despite deficit financing, represents a relatively unimportant factor in the budgets of these countries is the fact that governments have made little use of the traditional sources of public credit. They have tended to finance deficits either with foreign debt or with central bank issues; largely because domestic financial markets are small or because they have been eroded by inflation. Also, a substantial part of the newly contracted debt has been channeled through autonomous agencies responsible for the interest. Hence the overall financial incidence of the public debt is far greater than that revealed by the available statistics. The apparent contradiction between a growing deficit financing and the decline in the importance of transfer payments may be explained by: (1) in the absence of a well developed security market, the outstanding debt is held rather closely by official financial institutions; (2) with severe inflation the relative value of debt tends to diminish rapidly; and (3) the issue of new money and floating debt does not usually require service payments. On the other hand this may be contrarrested by increases in transfer payments due to an increase in subsidies for public enterprise and private activities. An objective has been the maintenance of low prices and tariffs for essential consumer goods or services of public interest and losses of individual or corporate bodies being offset by direct state subsidies. Obviously, the actual measurement of these expenditures is necessary to understand the inflationary role of the state.

TABLE IV

Distribution of Public Expenditure[a]

(percentages)

Country	1945	1950	1954	1955	1958	1962	1964	1965
Argentina								
Current Expenditure	40	28	44	71	65	72	-	80
Transfer payments	25	35	35	9	7	10	-	9
Investment	35	27	21	20	28	18	-	11
Brazil								
Current Expenditure	-	47	48	-	-	44	36	28
Transfer Payments	-	26	26	-	-	38	44	38
Investment	-	27	26	-	-	18	22	34
Chile[b]								
Current Expenditure	49	54	54	55	42	30	38	38
Transfer Payments	22	26	27	29	42	47	28	26
Investment	29	20	19	16	16	23	34	36
Colombia								
Current Expenditure	47	50	52	-	38[c]	42[c]	-	40
Transfer Payments	27	20	18	-	20	28	-	27
Investment	26	30	30	-	42	30	-	33
Peru								
Current Expenditure	43	43	34	64	61	54[d]	52	54
Transfer Payments	16	19	27	15	18	13	12	11
Investment	35	34	38	21	21	33	36	35
Mexico[e]								
Current Expenditure	81	61	59	-	31[b]	37	39	41
Transfer Payments	12	24	18	-	26	34	48	47
Investment	7	15	23	-	43	29	13	12
Ecuador								
Current Expenditure	-	48	50	54	52	48	39	41
Transfer Payments	-	19	26	26	35	37	48	47
Investment	-	24	26	20	13	15	13	12

Source: For 1945-1954 ECLA's Government income and expenditure, oc cit. distribution applies only within the federal or central governments. For 1955-65 United Nationas Satistical Yearbook (1959-1966) and Economic Survey of Latin America (1964-1966); distribution includes the total public sector on a certain number of public enterprises.

b) From 1962 the whole of the public sector
c) 1959 and 1963, respectively
d) 1963
e) Only the federal government.
f) 1959.

2.- Colombia and Peru, however, can be interpreted as intermediate cases. In both of them the proportion of investment dxpenditure was very substantial and inflation was mild. On the other hand, in Brazil and Chile - the closes cases to monetarism - when one comes to investment it can be seen that its proportion is relatively low and inflation faster.* Something which coincides with the initial evidence on Brazil. This amounts to saying, according to monetarism, that faulty budgetary policy was present and, according to structuralism, that the small proportion of investment expenditure contributed to inflation.

3.- 'But, of course, writes professor Maynard, if the distribution of expenditure does not help much to explain the extent of inflation in Latin America, it may go a substantial way in explaining the comparative rates of growth (14). In those countries where there has been stagnation of very slow growth - Argentina and Chile - the proportion of investment expenditure has fallen considerably. On the contrary, in Mexico, Colombia and Peru the share of investment has been high and the respective rates of growth relatively much more high, as well as inflation milder. Brazil, however, is an exception.

Turning now to real overall investment - public gross capital formation deflated by the cost of living index - and inflation, the picture is not really different** (See Table V).

1.- Once more in Argentina total public investment tended to stagnate during 1951-61 (only showing a slight recovery in 1964) while inflation has been rampant. Mexico, on the other hand, has experienced very fast growth in public investment and inflation has diminished significantly. Before 1958 the rate of public capital formation was slower and inflation faster, The same applies to Ecuador; before 1958 capital formation was increasing faster and there was price stability.

2.- In Colombia public investment has expanded at an amazing speed from 1951 to 1960 and inflation, although considerable, is relatively milder. Moreover, when the rate of capital formation declined in 1961-63, prices accelerated. The situation is similar in Peru. Here too, during the stabilisation programme of 1958-60, public investment was halfed and growth fell. However, throughout the period public investment and GNP have expanded and inflation has also been milder.

** International comparison, incidentally, have greater validity with the National Accounts than with Fiscal Accounts.

* This is the 1964-1965 recovery in the way of investment for these years the amounts are quite consolidated.

TABLE V

Indices for Real Public Investment (SI)[a] and for the Cost of Living (P)[b]
(1958 = 100)

Country		1951	1953	1955	1958	1959	1960	1961	1962	1963	1964	19
Argentina	SI	88	74	62	100	69	87	92	-	-	109	1
	P	44	48	61	214	272	309	395	491	600	771	10
Brazil	SI	59	53	54	100	92	100	105	146	107	140	
	P	35	50	73	137	185	256	390	684	1270	2050	
Chile	SI	Neg	Neg.	65	100	-	106	99	120	131	127	
	P		23	64	139	-	167	190	274	400	512	
Colombia	SI	10	14	23	100	105	130	131	127	124	-	
	P	61	72	76	107	111	121	124	164	142	-	
Peru	SI	36[d]	82[e]	147	100	57	54	122	87	194	146	1
	P	64	82	86	113	122	131	138	148	164	191	2
Mexico	SI	88[c]	68	79	100	102	124	-	-	-	233	2
	P	66	70	84	102	108	109	110	111	114	118	1
Ecuador	SI	49	65	113	100	104	132	152	159	119	120	1
	P	98	101	98	100	102	106	109	115	120	123	1

Sources: Boletín Estadístico de América Latina, UN, 1966 and Yearbood of National Account Statistics, UN, 1966-1961.

a) Gross Public fixed capital formation was deflated by the cost of living index

b) Prices are for the next year so as to allow for a rudimentary year lag.

c) 1952

d) 1956

e) 1954

3.- Lastly, in Brazil and Chile, total public investment has been very erratic and the rates of inflation the fastest in the group. It should be pointed out that when public investment expanded - as it happened in several years of the period - this appeared to have done little to reduce the rate of inflation. The evidence is inconclusive since there was growth in Brazil and stagnation in Chile.

With respect to the share of public investment in total fixed capital formation (TAVLE VI) the relation again appears to be between growth and such expenditure, rather than with inflation. It is true, of course, that in Argentina a shrinking share of public investment is accompanied by a slow rate of growth and fast inflation; and, that in Mexico higher relative public investment appears with a weakening of inflation and considerable growth. But, on the other hand, in Brazil, Colombia and Peru there has been an increasing share of public investment, growth, and persistent inflation. Chile, which is both stagnant and inflationary, has an increasing share of public investment; but the fact, as it was said is partially due to the slackness in private investment more than overall dynamic investment.

From the experience one may gather that, although public investment may contribute to slow down inflation over the long-run, by itself it is incapable of doing so. Structuralists would stress the agricultural and foreign exchange bottlenecks and the role of MST. Still, much depends on the methods used in deficit financing and on the behaviour of revenues, to which we shall now turn.

TABLE VI

Fixed Investment of the Public Sector, 1945-1964.

(as a percentage of total gross investment)

Country	1945	1950	1953	1955	1958	1960	1962	1964
Argentina	42.0	20.8	22.2	22.6	26.2	22.1	21.8[a]	-
Brazil	8.7[b]	19.5	12.0	24.0	40.1	42.8	46.2	41.6
Chile	39.2	30.2	23.9	-	-	58.5	52.3	58.0
Colombia	2.2	10.0	13.8[c]	21.8	16.2	14.8	20.4	17.4[d]
Peru	-	-	-	14.0	-	10.2	18.8	25.4
Mexico	35.4	47.0	43.0	-	-	46.8	43.7	49.3
Ecuador	-	29.6	34.8	41.4	37.4	47.5	27.1	35.7

Sources: Chile, Peru and Mexico from the Economic Survey for Latin-America, 1956-1966; the rest from Boletín Estadístico de América Latina, Vol. III, 1966.

a) 1961, b) 1947, c) 1952, d) 1963.

Public Revenue

It has been seen that the percentage of public sector ordinary revenue to GNP is appreciably smaller in Latin America than in the advanced countri In 1965 it ranged from 7% in Colombia to 25% in Chile.* It was also said in general that receipts, as a percentage of GNP or in terms of their real rate of growth, tend to lag behind public expenditure. This led to the initial conclusion that lagging public revenues are an important reason for budget deficits. In fact public expenditure has not increased so much - it has been reduced on several occasions - as one would have expented from the monetarist argument. Still, national differences have to be accountedfor. Over the long-run, it was felt that the structuralist argument was closer to Argentina, Mexico and Ecuador; that Colombia and Peru were intermediate cases; and, that Brazil and Chile were closer to monetarism.

The next step is to see if these tendencies and differences are better explained with the help of the taxation structure. For the purpose of this work, this involves surveying the composition of taxes in two broad groups: those derived from the external sector and the relative weights of direct and indirect taxation.

'Among the general economic factors, writes ECLA, which have a major effect upon the tax revenue and structure of Latin America and on tax burdens, is the chronic inflation to which a number of countries have been subject (15)'. Inflation, it is claimed, tends to reduce both incidence and revenues in real terms in the cases of certain types of taxes, not only absolutely but also in relation to other taxes.** It is apt to create a lag in income tax which reduces the real burden: tax obligations of one year are paid in the next in a depreciated currency. The incidence may also be altered because many indirect taxes, which are comparably easy to collect and to adjust to inflation, tend to gain in importance. On the other hand, income tax exemptions are often reduced; many groups in intermediate-income brackets are forced into upper categories with higher rates; and, those in the maximum bracket, where the rate ceases to increase, often pay lower taxes because of currency depreciation. This is why special attention should be given to the composition of taxes.

(i) Public Revenues from the external sector.

'On the one hand, writes Dr. Sunkel, some governments have clearly spent wastefully and unwisely, these being mainly the case with respect to military expenditure and transfer payments. On the other hand, the

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*The Chilean figure applies to total public sector receipts.

**It should be clear that the argument can be interpreted both in monetarist and structuralist terms.

fiscal system of almost all Latin-American countries has been incapable of providing the revenue needed to finance higher government spending. This is due to various causes, most of them inherent in the tax structure. In most of the countries a large part of tax revenues originates in the foreign sector either through taxes on exports or by means of import duties. But the foreign sector has tended to shrink in relation to GDP as a result of lagging imports. Therefore, apart from being as unstable as foreign trade itself, revenues derived from the foreign sector have tended to shrink in relative importances as sources of fiscal revenue in spite of important increases in rates and duties. This process has been aggravated by two factors: (1) many import taxes or even import duties are of a specific type, therefore losing their real incidence with devaluation and international price increases; and (2) the changing structure of imports has gradually reduced the volume of imports of high-duty final consumer goods, replacing them by low duty or even duty-free imports of raw materials and capital goods' (16). Professor Maynard also says that public revenues were subject to fluctuations because in some countries they are highly dependent on foreign receipts and these have fluctuated (17). Instability has therefore been introduced into the monetary system by the fact that external receipts and therefore public revenue have not been under the control of governments. When receipts are rising, moreover, governments often expand public investment from which they cannot easily disengage themselves when receipts and revenue decline. They are thus forced into budget deficits and credit creation, often at a time when real income from the external sector has suffered a check and there are balance of payments problems.

Assuming fluctuating and lagging external revenues - something quite feasible in the marjority of countries in terms of total receipts (see Table II again) - the question is how large is the dependence on the external sector revenues. Or, alternatively, have they decreased so much as to reduce an important share of possible revenues? If we now turn to Table VII, the problem is that the above structuralist argument is not present in a straight-forward manner in any of the countries! Moreover, it is difficult to establish a logical sequence between our previous conclusions and trends in external revenues. The best solution thus is to see each country by itself:

1.- In Argentina external fiscal revenues have expanded very noticeably but in the context of shrinking public accounts. Hence to relation can be established between the evidence and the rate of inflation.

TABLE VII

Revenue from the External Sector as a Percentage of Total Receipts

(1953-1965)

Country	1953	1955	1958	1961	1965
Argentina					
Total	100.0	100.0	100.0	100.0	100.0
External sector	6.1	2.1	3.5	25.5	19.6
M Duties	6.0	2.1	-	-	-
X Duties	-	-	-	-	-
Brazil					
Total	100.0	100.0[a]	-	100.0	100.0
External Sector	11.0	2.7	-	11.9	6.9
M Duties	10.0	2.7	-	-	-
X Duties	1.0	-	-	-	-
Chile					
Total	100.0	100.0[a]	-	-	-
External Sector	45.0	47.0	-	-	-
M Duties	13.0	21.0	-	-	-
X Duties	32.0	26.0	-	-	-
Colombia					
Total	100.0	100.0	100.0	100.0[b]	100.0
External Sector	25.0	-	30.4	18.6	23.7
M Duties	16.0	-	-	-	-
X Duties	5.0	-	-	-	-
Peru					
Total	100.0	100.0	100.0	100.0	100.0
External Sector	29.0	21.0	12.7	8.5	12.0
M Duties	20.0	20.0	12.0	8.0	12.0
X Duties	9.0	11.0	0.7	0.5	Neg.
Mexico					
Total	100.0	100.0	100.0	100.0	100.0
External Sector	28.0	23.0	24.0	24.0	17.0
M Duties	14.0	13.0	12.0	15.0	14.0
X Duties	14.0	20.0	12.0	9.0	3.0
Ecuador					
Total	100.0	100.0	100.0	100.0	100.0
External sector	38.0	47.0	42.0	47.0	50.0
M Duties	36.0	39.0	36.0	41.0	40.0
X Duties	2.0	8.0	6.0	6.0	10.0

Source: United Nations Statistical Yearbook, 1959-1966.

a) 1966

b) 1963

2.- In Mexico it may be seen that the weight of these revenues has declined; export duties have fallen sharply and import duties have tended to remain constant.

Stretching the structuralist argument, it could be said that as lesser reliance was placed on external taxes there was a shift towards price stability.

3.- In Ecuador, which is just as stable, the importance of external revenues is very high and has tended to increase. Still, it can be said that as external revenues and total receipts have expanded - as indeed they have - price stability has been more feasible. It is worth noticing, however, that import duties account for the marjority of such receipts.*

4.- In Colombia external tax revenues have had a considerable weight. Moreover, their importance fell in the 1960's when inflation accelerated.

5.- Peru, in the context of a buoyant external sector, is perhaps close to Mexico. External sector revenues have lost importance at a very fast rate and inflation has been mild. Still it cannot be taken as evidence for the structuralist argument; specially considering that the argument (in the opposite direction) is used for Colombia.

6.- In Brazil, on the surface, it is difficult to make a case for structuralism. Because for the greater part of the last two decades, external revenues represent a small proportion of revenues and total revenues, although fluctuating, have expanded. The fact remains, however, that in this case public expenditure is spent on the export sector in the form of subsidies to coffee exports. ECLA writes: 'Towards the end of the 50's the forces underlying inflation began to shift, and the relatively favourable situation was undermined. The turning point came with the coffee crisis. From 1957 to 1961 production was far in excess of the amount which could be sold in world markets, and resort was had to the traditional policy of withholding stocks from the market in an effort to support world prices. The funds paid out in the process of maintaining this programme were large, and with the peak coffee crop of 1959 amounted to nearly 3% of GDP. Combined with a government deficit

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*One has to remember that - following ECLA - when a large share of revenues is derived from import duties rather than exports (as in Mexico, Ecuador and Perú) dependence of the external sector is mitigated, but noe eliminated. Fiscal receipts from import taxes are ultimately, though indirectly, dependent on the foreign exchange from exports (18).

in the same year these outlays led to a rise in the price level of over 40% (19). Here, although the case is different, structuralists will argue that the drop in exports was the main cause of inflation and of forcing the government to some extent, into deficit financing.

7.- Chile is usually the classic case to illustrate the extreme dependence on revenues from the external sector (see alst Table VIII) and of the fiscal and price instability resulting from such dependence. 'The great extent to which government receipts from copper, writes ECLA, are vulnerable to sharp fluctuations in the price and demand for this commodity is evident. The fluctuations have tended to cause or aggravate budget deficits, and have been a key factor in accelerating inflation (20)'. The extreme dependen and the fluctuations of external taxation are indeed very present until at least 1955.*

From these conflicting regional trends, ane may conclude that with varying importance (more so in Ecuador and Chile and less so in Brazil, for example) the influence of external revenues on total receipts, their instae bility, budget deficits, and inflation may be applied according to the relative importance of the external sector.

(ii) The relative importance of direct and indirect taxes.

'Relatively stagnating revenues from foreign trade, says Dr. Sunkel, have confronted governments with increasing expenditure commitments with the need of shifting the tax burden from external to domestic economic activity. Income and property taxes could hardly be extedted to play a significant role as new important sources of revenue since the groups that approve the budget in congress represented precisely by the owners of most productive resources to which most of the income from those resources accrues. Therefore, indirect sales or production taxes, easily shifted to the consumer, have become the largest source of fiscal revenue. In view of the relative stagnation of foreign trade revenues, the existence of many specific taxes, the time lag between the assessment of the tax and the collection of the revenue, the inefficiency and the corruption of the tax administration, the regressiveness of the tax system and other factors, the total sum of revenues tends to fall consistently short of government expenditure requirements. This inelasticity of the tax system tends to gradually accentuate its regressiveness, since governments have to take refuge in successive increases in the rates and variety of indirect taxes. The perverse nature of this process takes its worse form when the economy is stagnating, because in an expanding economy there is at lease one positive element present, a growing tax base' (20).

* It is particularly unfortunate that, from the above year, the Chilean reven accounts no longer distinguish export duties in the general presentation (

TABLE VIII

Chile

Central Government Taxation Revenues
(percentages)

Year	Total Revenue	External Taxation			Internal Taxation
		Total	M Duties	X Taxes	
1945	100	50	16	34	50
1946	100	50	18	32	50
1947	100	57	15	42	42
1948	100	54	15	38	46
1949	100	49	17	32	51
1950	100	50	15	35	50
1951	100	57	17	34	49
1952	100	60	16	46	40
1953	100	48	14	35	51

Source: Economic Survey of Latin America, 1956.

The structuralist argument, according to the above circumstances, simple states that the more regressive the tax structure the more likely its inflationary impact. On the other hand, they would emphasise that public expenditure - especially if channeled to investment - and budget deficits as such are not necessarily inflationary.

The broad classification in direct and indirect taxes gives only a preliminary idea of the tax incidence.* But, the main structuralist assumption is that the predominance of indirect taxation in Latin America indicates a high degree of regressiveness. In so far as regressiveness from the economic point of view one should expect in the inflationary countries erosion, inelasticity, and fluctuations in total revenues. Something that will contribute to budget deficits and inflation. How regressive is then the tax structure in the selected Latin American countries? In general the predominance of indirect taxes is very strong in all countries (See Table IX). The fact is specially noticeable in Argentina, Brazil, Chile and Peru - all inflationary countries - and in Ecuador, a relatively stable country. In this last one the fact is caused, however, by the extreme importance of import duties. Moreover, in Argentina the share of indirect taxes has increased considerably. In countries, like Colombia and Mexico, the share is less important and inflation milder, specially in the latter.

TABLE IX

Indirect Taxes as a Percentage of Current Income

(1945 - 1965)

Country	1945	1948	1950	1953	1955	1958	1960	1962	1965
Argentina	73	69	63	64	63	70	79	85	84
Brazil	-	76	74	68	61	67	70	74	71
Chile	51	54	60	62	67	72	75	75	53
Colombia	52	49	50	49	61	58	-	48	56
Peru	57	55	59	72	74	61	53	73	76
Mexico	63	67	54	61	-	74	67	66	56
Eduador	-	-	87	87	84	85	84	86	-

Sources: Economic Survey of Latin America, 1956; and United Nations Yearbook, 1959-1966.

Footnote on following page.

*(from previous page)
Hence one cannot ascertain that from 1956 the trend has been the same How assume that copper export revenues although fluctuation have increased something that is very likely (See Chapter II, section b). Ho would one explain increasing budget deficits and at least part of the inflation?

The discussion of the trends in public expenditure and revenue brings us once again to the existence of budget deficits and the problem of inflation. The closing remarks and conclusions will thus be around this subject.

Budget Defitits

The post-war growth of the public sector in Latin-American countries has been accompanied by accumulated budget deficits which in all countries have tended to exceed surpluses (see again Table II). This trend is an obvious result of the disparity in the growth of public revenues and expenditure, but where a key factor is the behaviour of public investment. The three variables are of special relevance when one thinks of the relationship between the public sector and inflation and growth.

The disparity is reflected on the fluctuations of public savings. Government savings are defined as the difference between ordinary revenues and current expenditure. These are part of the funds avilable to finance public investment.. In relative terms they may be measured as a percentage of ordinary revenues (See Table X).

TABLE X

Governmental Savings as a Percentage of Ordinary Revenue, 1945-1965

Country	1945	1948	1950	1953	1955	1958	1960	1962	1965
Argentina=	-6.6	10.3	2.6	-3.0	5.5	-3.0	17.9	-	-
Brazil	-	16.1	12.9	18.2	7.4	17.6	16.5	-	-
Chile	19.5	24.5	9.4	-6.3	-	5.2	11.0	6.1	22.0
Colombia	10.6	20.6	29.7	7.3	36.2	40.7	39.2	18.0	-
Peru								13.0	6.6
Mexico	22.2	18.0	36.9	39.4	-	-	27.1	15.6	22.6[a]
Ecuador	-	-	15.5	10.4	22.1	23.2	21.5	19.1	25.8

Sources: See Table VI

a) 1964

(from previous page)

* A more exact classification should be one which distributes direct taxes into taxes on income and profits, on exports, on inheritance and donations, on wealth, and on others; and direct taxes into taxes on imports, onconsumption, and others. These can again be divided into sub-groups. For reasons of the scope of this work no attention will given to the subject.

From the monetarist point of view one would have expected large arbitr expansion of current expenditure and negative public savings leading to bud get deficits. In certain countries, i. e. Argentina and Chile, they have b negative in some years signifying that current expenditure alone has exceed ordinary revenue. But, Argentina is a country where public expenditure has tended to fall! Hence it is the contracting public sector as a whole which has led to budget defitits, and not vice versa.* Moreover, in the rest of the countries public savings have been positive, revenues superior to current expenditure. It appears then that public expenditure was not excessiv from this angle.

Still, looking at it in figures, it is obvious that public savings ha fluctuated very significantly, but perhaps more so in the more inflationary countries, Brazil, Chile and Colombia. Such fluctuations are a function, o course, of trends in both public expenditure and revenues. They are easily explained, however, by the fact that public savings are the net difference between anticipated revenue and projected revenues. Also, it is recognised in Latin America that a decisive role has been played by the external secto in determining these trends. Such instability may explain an important par of the budget deficits.

Looking at each country, the worse fluctuations and the lowest coeffi cient, except for some years, is that of Chile, a very inflationary country. In Brazil public savings have remained constant between 1948 and 1965. Col ombian public savings, although fluctuating, have been considerable and ex plain the growth of public investment. The coefficients are more stable an considerable in Mexico and Ecuador, countries with much less inflation and corresponding growth of public investment. But, while public savings reveal that current expenditure has not been excessive and that non-inflationary revenues were found to finance public investment, the final picture is stil one of budget deficits. Public savings have not really resulted in budget

It is thus clear that budget deficits, for the majority of years, have been difficult to cover without foreign loans or resorting, whether directl or indirectly to the issue of new money. 'Such inflationary financing, wri ECLA, has been greater in the countries where fiscal income has not grown a has tended to lag in relative terms' (22). Public debt has thus risen in various forms, although the relative importance of debt service payments, as we saw, has tended to decline.

There are different ways of covering budget deficits: (a) with cash balances accumulated from the surpluses of previous years; (b) by external or domestic borrowing; (c) or by the issue of new money.** The first meth

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(see both footnotes in the following page)

has been limited by the fact that deficits have tended to exceed surpluses by a fairly wide margin. Public borrowing - the kind that represents the transfer of savings or credits from abroad - depends on the availability of loanable funds. Latin-American governments - as distinct from semi-autonomous institutions or public enterprises - have had to draw mainly upon internal resources to finance these deficits. Experience, however, shows that this method nas met with serious difficulties:

a) Security markets in Latin America are not highly developed and their capacity to absorb new public debt issues is strictly limited. This, of course, varies from country to country and there are instances of development of the money and capital markets throughout the period.

b) The banking systems do not usually possess large excess reserves, and the purchase of long term bonds is restricted by stringent investment requirements.

c) Private financial institutions do not voluntarily purchase more than a minimum of low interest bearing securities essential for the diversification of their portfolios.

d) With inflation, investors naturally prefer stocks with a variable rate of return and offering the prospect of capital gains.

These conditions demonstrate that only relatively small amounts of public bonds are likely to be purchased voluntarily by the private sector. The extreme cases are those of Argentina and Chile, in which for some years, even current expenditure has had to be financed by credit. Nonetheless, in the other countries, a good share of public investment has had also to be financed with credits. The persistent situation has compelled public authorities to find imaginative ways to promote the sale of their securities and, failing to cover the full amount of the deficit, resort to measures which more directly result in a creation of money or to foreign credits. External debt usually includes credits extended to public enterprises, and in some countries liabilities connected with balance of payments deficits.

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*With respect to the Argentinian variables, ECLA writes that 'these figures do not include social security institutions, whose funds have been used to finance a large part of public investment. Therefore the inflationary effect of public finance has not been due to deficits but to the operation of other public entities' (21).

**For a superficial discussion on the subject see the bibliography (23).

Methods to promote public debt allotments can be divided in (1) special incentives to encourage the voluntary purchase of public bonds and (2) obligatory purchases. The next are a few of the imaginative methods used in Latin America:

1.- In Chile it has been suggested to issue bonds which bear an interest that varies with changes in prices. Or, alternatively, as in Brazil, where bonds have sold at such a discount that the interest rate rendered is very high.

2.- Exemption from taxes or advanced payments of interest(Brazil).

3.- An attractive measure - important in the context of recurrent devaluations - is to make bonds payable in a foreign currency. (As in Mexico) Of course, this method may only aggravate the problem of the balance of payments and the instability of the national currency.

(4) In general issues made by autonomous public agencies may have better reception than public bonds.

(5) Make bonds freely negotiable or discountable at the central bank. But with a small bond market it may happen that in effect the government purchases bonds from itself with fiscal resources or bank credit and through a regulating body. The danger of the system is the threat to the solvency of the intermediate institution and speculative selling, together with the fact that to a certain extent they are inflationary.

(6) The obligatory purchase of bonds by private enterprises (Brazil and Colombia)

(7) To the extent that social security funds are large, governments have used them to absorb public debt (Argentina and Uruguay) The method, however, gets out of hand when such reserves are usted to covert part of the current expenditure. The moment when they cannot be replaced usually appears very soon.

Resuming, however, it is clear that these methods have been insufficient to cover the complete budget deficit. Resort to Central Bank credit has been taken in all countries. Extreme examples are those of Chile where the system is to float debt from one year to the next; or, Brazil where periodically the government's debt with the Banco de Brasil is simply cancelled. The object of this superficial exercise is only to establish the very well known fact that budget deficits have led to inflationary financing methods.

So in the end both monetarists and structuralists are faced with budget deficits and lesser or greater inflationary financing. But this is where the similitudes end. Something that is fundamental to establish if one is to understand how almost diametrically opposed policy measures are recommended.

For an ideal monetarist budget deficits have arisen mainly because of excessive public expenditure and inflationary recourse to deficit financing, and, secondarily, by lagging public receipts. The policy measures are orthodox monetary and fiscal policy or, in other words, the reduction of public expenditure and debt, public investment as a whole included. This is his road to stability. The existance of inflationary infrastructure bottlenecks remains.

For ideal structuralists budget deficits are a result of lagging public revenues and necessary - although insufficient and sometimes wasteful - public expenditure. Their objective is to reduce infrastructure bottlenecks and hence set the road to stability. In fact, they face the problem of inflation and public expenditure with a growth priority. With respect to policy measures they would recommend the expansion of public investment - and they would recommend public expenditure - and propose a fiscal reform. They presumably contemplate stability as a long run objective to be achieved through growth and the expansion of the public sector. If pushed to extremes they would rationalise the need to increase public investment, even if this meant deficit financing and short-run inflationary repercussions.

With respect to the explicit proposition on the structuralist thesis, it was seen that there is a considerable relationship between the trends in public expenditure, public revenues, the composition of expenditure, and public investment - this last one being a clue variable - when analysed in terms of changes in prices and the overall rate of growth. That is, elasticity in public accounts may lead to growth and sometimes to stability; the opposite - a fall in public investment and lagging revenues - may lead to further inflation and stagnation. Structuralists, it has to be remembered, consider budget deficits a propagating or secondary cause of inflation.

(e) The Distribution of Income

Structuralists believe that the existing distribution of income especially in the selected semi-industrialised countries, is another fundamental factor behind Latin America(s inflation.* The purpose of this section is to establish the possibility of such a relationship. In one sense this parte is a continuation of the monetarist argument which was entitled A reduced discussion on savings and investment (Chapter II) and which 'showed' inflation as a function of these variables.

The distribution of income, aside from instability, is in itself a particularly problematic field. By problematic one means that in this field - with more relevance than in other parts of economic theory - economic principles are subject to sociological and ethical considerations. This has not always been helpful, in so far as the establishment of unequivocal principles on the distribution of income. Professor L. Reynolds writes: 'I've studied welfare economics and I realise perfectly well that as an economist I'm not entitled to say anything about what constitutes a proper distribution of income, but I'm going to do it anyway. I'm going to speak of a shift towards greater equality of income as an improvemennt, and a shift towards greater inequality as a worsening of income distribution. This is a value judgment, if you wish (1)'. Mrs. Navarrete quotes G. Stigler as writing: 'if economists as a class have always been against an unequal distribution of income this does not mean that they are in favour of an equalitarian distribution (2)'. 'When speaking of the distribution of income, writes Mr. M. Flores, another Mexican economist, one may claim that it is inconvenient, unfair and unequal. These objectives, however, are not always compatible. In general, a fair and convenient distribution has to be unequal and, in some cases, an unfair distribution of income has been convenient. Confusion has arisen because of the use of concepts like equality, fairness, and convenience' (3). Due to these considerations and due to the fact that straightfordwardness is desired the following system of exposition is adopted.

(1) A general description of the structuralist income distribution position.
(2) Incorporate to the above the problem of chronic inflation.
(3) An 'unorthodox' structuralist thesis - stretching the meaning of the word on the relation between income distribution, instability and growth.
(4) Income distribution trends in Latin America.

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* (See footnote on the following page)

(1) On the general structuralist thesis of income distribution.

If abstraction is made of many factors, the distribution of income may studied in the following three ways:

1.- It can be measured as the distribution of GNP between the different sectors or production, i.e. agriculture, industry, services and government.

2.- As the distribution of income between the factors pf production or national income at factor cost.*

3.- The distribution of personal income. This classification does not consider whether the personal income accrues to labour or to capital. Nonetheless, it bears a relationship with the distribution atfactor cost, because generally speaking, personal income composed wf wages and salaries are lower than those derived from capital. A perfect distribution of income would be one where all the individuals have the same income (a perfectly progressive one). An imperfect distribution of income would be one where great differences are found between the higher personal incomes and the lower personal incomes (a regressive one).** In the context of what follows the more relevant classifications are the two last ones.

The distribution of income, writes Mrs. Navarrete 'firstly presents a statistical problem. Second, it presents the problem of analysing the causes or forees that determine a given pattern of distribution. Lastly, distribution may be seen as a problem of economic policy; something that implies the possibility of changing a given distribution of income through policy tools (5) This study is only concerned with the second problem and only inasmuch as it will help to establish the structuralist position. That is, the work is concerned with the determination of a given distribution of income; the changes that occur in such a distribution; and, the arguments raised against a regressive distribution, in the context of a semi-industrialised Latin-American economy.***

A given distribution of income

If one assumes a country where the average level of income satisfies the essential and normal needs of an individual and where income is equally distributed among all the families, the distribution would be perfectly progressive. Differences in the habits of consumption and savings may exist without perturbing the distribution when, in overall terms, savings equal investment in such a manner as to maintain the

*(from previous page)
The statistics on income distribution in Latin America, as in other regions are scanty, tentative and unreliable. Something which stresses the marked theoretical character of the subject.

*For the purpose of this work it is importat to stress that the income accruing to capital may be distributed among capitalists according to their personal stock of capital something that changes with capital accumulation.
(See footnotes ** and *** in the following page)

stock of capital. The result would be a stationary economy with net savings and investment equal to zero. The given distribution may change the moment there is population growth and technological changes. This only goes to show, of course, that inequality in the distribution of income is impossible under dynamic assumptions. For a structuralist the question is what degree of inequality or equality is 'best' to achieve net capital formation. Mrs. Navarrete says that a conspicous regressive distribution does not contribute to growth and, alternatively, that a more progressive distribution may be compatible with a high rate of economic growth.

However, a very frequent economic principle of income has been the one that claims that a regressive distribution of income contributes to growth, since overall consumption is contained and savings may increase. A more progressive distribution would result in higher consumption and lower savings, capital formation, and growth. Before going into opposite changes in the distribution of income, it is convenient to see how structuralists analyse a given distribution.

Assume first a regressive distribution of personal incomes, where low income groups are the majority. In such a situation the majority of the population will have low incomes and will only consumer'essential' goods. A high proportion of income, concentrated in a minority, will be saved or used to consume 'non-essentials'. Such a distribution brings forth the possibility (not the existence, notes Mr. Flores) of a relatively higher rate of savings. Moreover, the regressive distribution per se may result in higher savings.

A fundamental determinant of this is the existence of attractive investment opportunities. If these are not present the savings of the nigh income group may be consumed. Imagine, for instance, that demand for essentials (that one mainly formed by the lower income groups) is already satisfied. Still, investment opportunities may be found in the production of non-essentials consumed by the high income group. But, imagine, that the production of non-essentials is easily satiated (since its market is small) or that, for technical reasons, they cannot be produced domestically.

(From previous page)

** For the theoretical measurements of the distribution of income between income groups - according to Pareto, Gini and Lorenz - See Mr. M. Flores Chapter II (4).

*** The exposition that follows relies heavily on the cited works of Mrs. Navarrete (See Chapter I) and Mr. Flores (see Chapters I and III). No specific quotations except in some cases, will be given because their arguments are not used verbatim.

In either case, the lack of investment opportunities may result in a high consumption of imports which puts pressure on the balance of payments. Alternatively, investment may be channeled to export activities, but this depends on any elastic external demand.

A regressive distribution of income is obviously a function of many variables. One, however, has important significance. Savings accumulated through time, and in a regressive fashion. (The distribution of wealt

Such a distribution may be seen from a different angle. That is, simply to determine who receives the goods and services produced in a given period. In a system of private enterprise, and under statid assumptions, this resolves itself, for better or worse, through the price mechanism that equates the supply and demand of the different factors of production. For instance, if in a given activity the level of wages increases over-and-above that of other activities, the labour force employed in these last ones will come over to the activity with high wages. In fact the supply of labour for the activity increases in such a way that wages are reduced, while in the other activities the reduced supply of labour will increase wages: in the end all activities will tend to have the same level of wages. In the same fashion, the price system will equate the rate of profits in the different activities.

If capital happens to be available in greater proportion than labour those entrepreneurs, who maintain the same combination of factors of production, will have to give higher wages to the relatively scarce labour. But the tendency towards higher wages will induce entrepreneurs to employ relatively less labour to capital. In the long run there will be a new combination of factors of production with more capital per worker higher average wage, and a lower rate of profits.

With respect to the distribution of capital among 'entrepreneurs' the price system only indicates the final results; it does not show the distribution of capital among the individual capitalists. Because each capitalist receives an income that bears some relation to his stock of capital, something which depends on the distribution of wealth. Thus the capital of each individual is determined by the accumulated capital or savings, by the propensity to save, and the time that has elapsed while capital was being accumulated.

In conclusion, under the above assumptions, the regressive distribution of income determines the possibility of having larger savings;

which in turn depends on the propensity to save and on the availability of investment opportunities; and the distribution of income is determined by the price system and the distribution of wealth.

Changes in the distribution of income

Assume first what follows:

1.- A regressive distribution of income where the wage sector is formed by the lower groups of personal income.

2.- The growth of real output per capita increases the capital formation per worker.

3.- Total savings increase capital formation at a higher rate than the growth of population.

4.- There is full employment of the factors of production.

5.- Savings increase more than proportionately than increases in personal income and that savings are formed mainly by entrepreneurs.

Second, what happens then to the distribution of income?

1.- If capital accumulation is increasing at a higher pace than the growth of population, entrepreneurs will be competing among themselves for the relatively scarce labour and wages will increase.

2.- Entrepreneurs will thus be induced to change the composition of factors of production and they will increase the amount of capital per worker.

3.- The increase in wages will tend to diminish the rate of profits per unit of capital.

4.- Each entrepreneur will receive lower profits per unit of worker, but, having invested more savings, will have increased its stock of capital.

5.- In the end, labour will have higher average wages and entrepreneurs will have increased their income as a consequence of the additional investment.

6.- So far it would seem that an increase in savings, investment, and income and the final distribution of this income does not necessarily alter the initial distribution of income.

What are then the factors that change the distribution of income?

1.- If there is unemployment, wages will not tend to increase. Income will increase and entrepreneurial personal incomes will too push the regressive distribution further. Although the weakness of effective demand will act as a brake on the process.

2.- Technological innovations will appear, reduce labour employment, and

contributes to the regressive distribution of income. Innovations can also contribute in another fashion to the concentration of income; those entrepreneurs who first apply innovations will be more competitive than the rest enabling them to absorb the less innovating entrepreneurs.

3.- A technological innovation, on the other hand, will tend to reduce costs and prices and hence result in a gain for consumers. A reduction in prices will not occur if there are strong tendencies towards monopoly or if the external demand is very elastic. When a reduction in costs is not accompanied by a reduction in prices, the new profits will accrue completely to the entrepreneur.

4.- Oligopolistic concentrations may lead to the control of supply and to a monopsonic demand for the factor of production. Such tendencies may reinforce the concentration of income in the entrepreneurial sector.

5.- A credit expansion to the entrepreneurs may constitute a transference that places a greater proportion of total income at their disposal.

6.- An increase in wages and salaries and a reduction of profits will redistribute income progressively. The reduction of profits is not unnecessary, if credit covers wage increases.

One is here interested in possibilities 5 and 6, in structuralist terms.

1.- Assume that the redistribution of income has turned out to be regressive and that there are increased savings potentialities. The lower personal income groups save unnoticeably and are not able to increase their consumption. On the other hand, in the high income group the fact that potential savings turn out to be savings depends, as was said, on the investment opportunities. If these are not present, they will consume - not save - their new income. But they will not consume more essentials; they will consume luxuries. This means that the demand for non-essentials will become more elastic. Investment in non-essential industries may increase, but it is also highly probably that imports of luxuries also increase. The regressive distribution of income will change the structure of production in the following ways: (a) a higher production of non-essentials and exports; (b) a stagnation of the production of essentials; and (c) higher imports especially of luxury goods and services. It was seen in the sections b and c that such changes in the structure of production and expenditure may be inflationary namely through a pressure in the balance of payments and high c

industrialisation.

2- Assume, on the other hand, that there is a progressive distribution of income which takes the form of higher wages. The low income groups receive an increasing proportion of total income. But, since their savings are negligible, the demand for consumer goods increases. Overall savings only increase slightly, because savers have suffered a relative decrease in their income. Nonetheless, the elastic demand for essentials will create new investment opportunities. But since savings are insufficient, imports, both of essentials and non-essentials, will increase and create a deficit in the balance of payments. This may well lead to inflation. Two factors are likely to be relevant. First, a devaluation will tend to be inflationary and distribute income regressively (Part III, Chapter 1). Second, an expansion of credit will ensue (to avoid stagnation) which may increase profits and decrease real wages. Whether the distribution of income turns out to be regressive or not will depend on the competition for income shares between workers and entrepreneurs. The existence of unemployment may prove determinant. But, in conclusion, writes Mr. Flores, 'the tendency towards a more uniform distribution of income in an UDC, tends to unbalance the system because of the pressure it exerts on prices and on the balance of payments (6)'.

It appears from a theoretical point of view that, at this state, either way, regressive or progressive wise, a change in the distribution may probe inflationary. With respect to Latin-American countries, Mr. N. Warman commented (7): 'Any distribution of income may be inflationary or not'. This does not mean that most structuralists regard inflation as inevitable. Still, one has to see why they recommend a progressive distribution of income, before going into the problem of instability.

A progressive distribution of income

Aside from inflationary pressures, structuralists are against 'an excessively regressive distribution of income'. They simply believe that the traditional principle of a high propensity to save with the concentration of income has fallen into discredit, especially in UDC. It is thus convenient to list the core of their arguments:

1- A high volume of savings is not desirable per se. If investment opportunities are limited with respect to savings, the higher the equality in the distribution of income the higher the propensity to consume and, thus there will be higher levels of demand, employment and production. If income inequality means a high volume of potential savings that are not invested - because of 'under-consumption'- there will be deflation in the short-run and stagnation in the long-run.

2.- A regressive distribution of income does not necessarily result in a high volume of savings. 'When the high income groups are composed by a class whose set of values are not commercially directed, writes Mfs. Navarrete, emphasis will be place on extravagance and wastefulness, attributes which are not compatible with the austerity and thrift of a capitalis class'.

3.- Statistical measurements have shown how personal savings have lost importance as a source of capital formation and how institutional savings, formed within enterprises - public and private - insurance companies and social security institutions, etc, have gained relatively.

4.- Professor Kuznets has described, ina historical sense, different combinations between savings and investment and growth. Savings and investment can be relatively high and the rate of growth also high, like in Japan; they can be really average and still growth high, like in Sweden and perhaps in the United States; or they can be high with a mild rate of growth like in Great Britain.

5.- A regressive distribution of income - because of the structure of demand that accompanies it - may stimulate investment with a low capital content where investment productivity per worker is low.* If the size of the market is small and capital scarce, the movement of labour from agriculture will move into activities which have a low capital productivity per worker, like services and cottage industries.

6.- High income groups may satisfy partially their propensity to consume with imports. When the import of consumer durables is very restricted, the demand for raw materials and intermediate products for their domestic production will grow very noticeably. Moreover, national tourism may increase. This may easily put pressure on the balance of payments especially if the demand for imports is less elastic to changes in income than investment.

7.- With chronic inflation, the balance of payments may fall into chronic disequilibrium, investments's structure will be distorted. Investment will hedge against inflation in real estate, inventory formation, savings in foreign exchange or, if conditions are favourable, in export activities.

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*There are, of course, may exceptions when capital intensive luxuries may be produced domestically.

8.- A regressive distribution of income may not only distort savings and expenditure, it may also limit supply. A regressive distribution of income is reflected in large population groups with a very low level of productivity. This may be caused, among other things, by the small opportunities of significantly remunerative employment. If consumption of the low income groups were to increase, it would mean higher mobility and productivity in the under-employed labour. The supply of labour would be made more elastic.

9.- A more progrdssive distribution of income seems to accompany the development of a higher income per capita. With time, the proportion of concentrated income in high income families has decreased; middle-income groups have become larger; and mass poverty has been virtually eliminated in many countries.

This line of argument has led structuralists to certain policy recommendations, into which we shall not go here into*; and to the 'economic phylosophy' we have been noticing all along the exposition of the structuralist school. The following quotation from Mrs. Navarrete makes the fact explicit:

'if one considers that, in an UDC, a functional distribution of income (from the angle of economic growth and thus less regressive) is not attainable by itself nor as a simple and spontaneous result of the process of growth, because there are no factors that automatically guarantee an optimal distribution of income. Situations are created where the distribution deteriorates and the rate of development is reduced. Since the Great Crisis, it is admitted that the competition and market forces do not result in the best of all possible worlds and hence the promoting intervention of the State. It is necessary, in the same fashion, an intervention of the State which guarantees a policy of distribution of income. The purpose of which would be to correct unbalances and reduce the wastefulness produced by the market and accelerate the process of growth, in the face of scarce capital and abundant labour (8)'.

Attaining a less regressive distribution of income which would lead to a higher rate of growth, involves in structuralist terms the following:

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*The policy objective is, of course, a more progressive distribution of income. The economic policies, in general, include: fiscal measures, taxation and expenditure wise; an incomes policy, which comprises higher employment goals, minimum wage legislation, a higher load of productivity and skills, etc; wage participation in the enterprises profits; anti-monopolistic legislation; an agrarian reform, and so on.

1.- A higher surplus resulting from an increasing national income and the level of consumption. This should be based on graduated increases in the consumption of essentials and the reduction of non-essential consumption.

2.- Investment should be oriented in such a way that the inequality in the average productivity per worker is reduced in the different sectors and branches of industry.

3.- The increase in the consumption of essentials should enlarge the market and lead to larger economies-of-scale.

4.- A more progressive distribution of income should be induced up to the point where savings and investment are as large as possible and essential consumption is encouraged.*

In conclusion, structuralists are interested in establishing a relationship between a progressive distribution of income and the growth of output. The distribution of income, writes Mrs. Navarrete, influences the volume and composition of demand and the volume and selection of investment. And, on the other hand, it influences the composition of the supply of labour, through changes in productivity. If the distribution of income is more progressive, there is an element of economic stability as the level of consumption increases and an element of growth as productive investment is directly stimulated and results in a higher aggregate value. In the same manner, Mr. Flores concludes that the marked concentration of income reduces capital formation because it limits effective demand.

Having arrived at these structuralist conclusions, our fundamental problem remains: what happens when chronic inflation is incorporated to the growth assumptions of a more progressive distribution of income? It has been seen, however, that 'any' distribution of income may prove to be inflationary. How structuralists handle this proposition, in terms of the controversy, is the main objective of the section that follows. It is convenient to advance the way in which professor Balogh focuses the problem (10). Redistribution towards the rich, which is commonly regarded as a means to increase savings, investment, and economic progress certainly produces no such results in Latin America. It might even lead to a worsening in the balance of payments and to unemployment as domestic products are displaced by high-grade imports because of a high propensity to consume. A redistribution of income towards the low income groups in general

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*The theoretical analysis which develops these considerations may be seen, among others, in the work of P.A. Baron., G. Myrdal, and H.W. Singer (9).

would not lead to a fall in savings. Even if it did, it might lead to an improvement in the quality of investment - less luxury construction and investment in the production of luxury consumer goods. But, a redistribution of income towards the poor if, on the other hand, leads to investment in popular consumer industries may bring about a fall in the propendity to save. This would have to be very carefully managed, as it might get out of hand and cause inflation. Superficially it thus appears that 'more' inflation is inevitable.

(2) Inflation and the regressive distribution of income.

It is convenient to start with the controversy itself and again, assume the existence of typical monetarists and structuralists. Contrary to what it may appear, it seems that monetarists, when working with an inflationary setting, do not regard the regressive distribution of income as a source of potential savings and investment. That is, where inflation to concentrate income on entrepreneurs, a monetarist would stop it for the sake of stability. Once this is achieved and competitive factor allocation reached through competition, the problem of increasing the propensity to save in a Latin-American country would be another and different from the one derived from an inflationary setting. But this does not mean that monetarists are not interested in a more progressive distribution of income. It simply means that their set of priorities is different from that of the structuralist thesis just described. Professor Reynolds writes that for may reasons there has been an equalising tendency in the distribution of income in the United States. 'Since 1950 there seems to have been little change. So it may be that marked changes in income distribution occur in sharp bursts and that it takes some catalytic agent such a s a war or a great depression to set them off. But the main direction of change is reasonably clear. If we had right now income distributions for 1980 or 1990, I would be surprised if they were not more equal than the distribution of 1963; and Ithink this will be true for the other mature industrial nations. How comforting this is to the countries in the early stages of development, I do not know. It may amount to saying, "when you get rich enough your problems will be easier - including the problem of income distribution!" (11). This could be interpreted as monetarists making a progressive distribution of income a very long run objective. Structuralists do not only find the thesis discomforting, but refuse to wait for the price system to re-distribute income progressively.

Moreover, monetarists claim that inflation is likely to produce force which reduce and divert savings to excessive accumulation of inventories and luxury construction, rather than to productive long-term investment and popular housing. Of the productive investment actually made, a bias will develop towards short-term projects, while resources may be diverted from basic necessities and investment goods to the production of consumer goods, particularly luxuries. Inflation will also discourage foreign investment and induce a fl ight of capital and the purchase of foreign exchange and securities (a somewhat indeterminate evidence for these factors is discussed in Chapter II). In these terms the agreement between monetarists and structuralists would appear within reach. The differences between them, however, are indeed very great.

Concentrating on the distribution of income, the theoretical differences of the schools may be explained - among many possible ways - starting with the structuralist set of priorities.

1.- Assume that a structuralist has a more progressive distribution of income as a short-run or, at the very most, a s a medium-term objective.

2.- Assume, secondly, that he is dealing with an inflationary economy.

3.- Assume, thirdly, that inflation may be a function of alternative changes on the distribution of income (it is, of course, very conceivable that inflation may have 'simultaneously' a regressive and progressive effect on the distribution).

a) Abstracting from a combination of tendencies, assume growth and a more regressive distribution of income which induces more inflation. The fact, as we have seen, is explained mainly by the lack of effective demand, a high propensity to consume of the high income groups and hence a low propensity to save, a high propensity to import consumer durables or their components, inappropriate investment opportunities, an improductive labour force, and so on. This line of argument forms the main body of the structuralist thesis (a very good example of it is the work of Mr. Flores de la Peña (12). Professor Grunwald resumes it in the following words: 'another structural impediment for a more elastic supply of products is said to be the very unequal distribution of personal income. This income distribution in itself implies a certain composition ... of demand both domestically and for imports, which is not conducive to a high rate of growth. Domestic production and imports would cater to the restricted higher income groups.

Therefore, it is argued, investment and import substitution would be geared toward such production to the detriment of growth industries and investment in social overhead which would give greater flexibility to the economy (13)'. Structuralists, within their set of priorities, are interested in devicing ways of redistributing income and hence reduce its inflationary consequences.

B)But also, assume that a more progressive distribution of income as was also said, induces inflation. Such inflation would appear when the demand for essentials increases as a result of higher real wages or other measures that amount to higher personal incomes for the low income groups; and when 'non-inflationary savings' are not available and set various inflationary foces in motion (structural or propagating). Because of the weight of the previous argument, it would appear that structuralists would be less interested in curbing these causes of inflation. Hence the idea that structuralists, as it has been said, are 'more permissive' towards inflation than monetarists. The time has come to qualify this concept.

The inflationary consequences of a redistribution of income may also be seen as a problem for economic policy. However, among structuralists there are no general consensus of opinion in the matter. Dr. Prebisch in his 'false dilemma' proposition represents those who are not permissive towards inflation (14). On the other extreme, there are those, like professor Baer and Mr. I. Kerstenetzky, that for totally opposite reasons contemplate the possibility of continuing inflation. In superficial terms, again, the question is one of the priorities and compatibility of growth and stability objectives. We shall deal here with the assumptions made and the propositions of Dr. Prebisch and others. In a later section there will be a discussion of what has been called an unorthodox structuralist thesis or permissiveness towards inflationary forces.

Structuralists have to explain their assumption of the compatibility of progressive distribution of income with growth and stability; or alternatively, how the concentration of income may lead to further inflation, stagnation or to a dangerous pattern of growth. An element of special significance is to explain how structuralists deal with the fact that increases in wages and a progressive distribution of income (necessary as they may be) may also lead to inflation and slow growth.

In general terms, monetarists accuse structuralists of sacrificing stability for a dangerous - and eventually unattainable - growth objective. Structuralists, according to what has been said, reject the accusation.* The missunderstanding has occurred because (some structuralist' - only some - have reached the conclusion that inflation is inevitable and the regressive distribution of income perhaps inescapable. Such arguments will be discribed in the following section. Here, one has to insist that the main body of structuralists are devoted to the problem of achieving fast growth with stability and a tendency towards greater income equality.

The problem involves a structural change. Monetarists, however, seem to think this is being permissive with inflation. Their proposition is much simpler: inflation has been caused by monetary and fiscal permissiveness; it should be stopped with orthodox policies which will first achieve stability, then growth, and much later a more progressive distribution of income.

For structuralists, on the other hand and other things being equal, a change towards a progressive distribution is necessary to achieve growth with stability because of the savings process in Latin America. Savings are not only relatively low in the region because of low levels in income per capita but because of its distribution and the patterns of consumption. An increase in savings calls for a change in distribution and consumption and in the structure of production and imports, so that increased savings may be converted into capital goods. This is a structural change. For them, it is the resistance to these structural changes, necessary for a rise in savings, which often leads to inflation.

A structural change - growth with stability - implies essentially an increase in the productivity of labour. Moreover, for Dr. Prebisch, such a change does not appear to require a restriction in the consumption of th bulk of the population, which on the whole is too low, in order to accumulate the capital required for industrialisation and for the technical improvement of agriculture (15). Hence the emphasis on a progressive distribution of income. Productivity is to be increased through the industrial employment of the unemployed and the scope for technical progress in agriculture. Technical progress should result in a net increase in national income and hence in an increasing margin of savings.

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*This is, again, Dr. Prebisch's false dilemma of growth or stability; where, in academic terms, the objectives are argued compatible without a monetarist stabilisation policy.

Savings depend ultimately on the sustained increase of labour productivity, it is said that in Latin America productivity is low because of a relative lack of capital and that the lack of capital is due to low savings resulting from the low productivity (the vicious circle theory). The circle breaks, in structuralist terms, when low savings are viewed (at least partially) as a consequence of the conspicous consumption created by the regressive distribution of income.* How is this incorporated into an inflationary setting?

In principle, it appears that inflation makes it possible to raise the level of public and private savings and investment, but the structuralist thesis is that by swelling the profits of high income groups, it also causes an increase in consumption, generally on a higher scale than investment. It is therefore a socially costly and regressive method of raising the savings coefficient. If a large part of the profits, writes Dr. Prebisch arising out of inflation had actually been saved and invested the domestic consequences of inflation would have been beneficial, but experience does not prove this. It seems that the proportion of profits consumed has been considerable. Moreover, the high income groups have a high import coefficient and it is not surprising that foreign exchange is spent in products not essential for economic development... Even if inflationary expansion were a practical expedient for nurturing the low savings margins, there are better ways of achieving that purpose '(16). Whyis this so? Some groups benefit considerably from inflation while others must lose. Traditionally it is said that the middle-class and fixed-income groups are those who bear the weight of the transfer of real income to entrepreneurs and other beneficiaries, as well as the wage sector. The better organised trade unions should also in principle be able to transfer the cost of inflation. With the increase in employment during the first phases of an expansionary process there might be a real increase in the income of labour. This, of course, depends in the lag with which wages are adjusted to rising prices. All this redistribution of income brought about by inflation creates in the sectors that benefit a money illusion, even though real income may cease to increase once the stage of moderate inflationary expansion has passed. The illusion begins to fade when different sectors compete for a stagnating level of income. This further increases inflation. In a third phase a painful readjustment is needed; one that usually brings down the standard of living of all, profit earners, wage earners and the rest. In short, if the savings which accumulate through inflation are furnished by many sectors of the community where as the benefits accrue only to some,

* Hence great caution should be exercised when approaching the argument that inflation is usually the result of inadequate savings.

the question arises whether it is not possible to device other forms of savings by which resources could be better devoted to productive ends, without the serious disadvantages of inflation and a regressive distribution of income.

Having established that structuralists are against a regressive distribution and inflation, the factor of the inflationary nature of wage increases remains to be answered in strusturalist terms. Dr. Prebisch will be followed in this point (17).

The author says that there are three main elements in this regressive movement which derives from growth itself: (1) the cost of import substitution, (2) the higher cost of agricultural products, and (3) the rise in taxes and duties which affect mass-consumption. Thus to raise wages is a very understandable reaction. The author concedes, however, that this fails to solve the problem of growth and inflation. Nor is the solution in the policy of a credit squeeze: if Central Banks do not increase credit when wage increases, they cause a contraction in economic activity. Hence the contraction may be due not only to the structural characteristics of the Latin-American countries, which have now been described, but to the use of monetary policy to deal inappropriately with the consequences of structural flaws.

But this does not mean that a structuralist, like Dr. Prebisch, is willing to let wages increase indefinitely. First, inflation is not an effective way of redistributing income from the point of view of the masses. Second, there are better ways of doing it: taxation; trade union action that guarantees effective increases in productivity, instead of wasting their energy on securing wage increases which are soon cancelled by the inflationary spiral. What is needed, writes Dr. Prebisch, is a wages policy which leads to such goals and at the same part ensures the growing participation of the broad masses in the process of national capital formation. The defense actions aimed at correcting this regressive distribution need not be inflationary: it is up to the banks to use credit facilities to compel the entrepreneurs to absorb the wage increases by means of their inflation swollen profits.

Hence, an essential measure to achieve monetary stability without detriment to growth is the stabilisation of wages. The rise in prices brought about by an inflationary demand - or by devaluation - exceeding the increase in costs rises the profits of firms, so that it is possible to restore the previous level of real wages without a further rise in prices and without the need to implement a credit squeeze which reduces private and public investment.

In the cost-price spiral, the relationship between the real amount of wages and prices and profits fluctuates continually. After wages increase, in general, the real level of wages decreases again and profits rise. If wages are then stabilised their real level tends to be lower than the average level resulting from these fluctuations. And, if there is no further adjustment effective demand is reduced. Similarly the deflation reduces profits and demand for the high income groups. There is a force which tends to arrest this movement. When prices and profits fall there is a further increase in real wages which will continue until wage demand absorbs the entire output. At this point the process of contraction stops, but usually at a lower level of activity than had previously reached. But, asks Dr. Prebisch, is it really necessary to go through this process of contraction and recovery when it could have been avoided by devising the right point at which to stabilise wages?

On the other hand, in Latin America the inflationary spiral usually constitutes a psychological safety-valve when the contraction of income and its regressiveness militate against an upward trend in the standard of living. Inflation has not proved an instrument of progressive distribution in favour of the masses, since the credit system makes sure that the burden of illusory wage increases or social security contributions is shifted back on to their own shoulders. Hence the defensive posture in the wage sector is not inflationary but a correction to the effects of inflation. That wage increases higher than what can be absorbed by profits or productivity culminate in a spiral is an incontrovertible fact, but it must not be supposed that as a preventive step the stabilisation of wages constitutes by itself a basic solution to the problem. Such a stabilisation of wages also implies a reduction in effective demand and the freezing of the regressive distribution of income. The fact, may not only reduce growth but eventually enhance inflation. The problem resolves itself in the following conclusions:

1.- The redistribution of income assumes a new characteristic in Latin America. In the capitalist evolution of advanced countries, capital accumulation proceeded redistribution. In our countries the two operations have to be performed simultaneously. Hence the need to seek the compatibility between a progressive distribution of income and growth.

2.- Within the domestic economy the solution lies in increasing savings, but without recourse to inflation. Savings depend on productivity and in the restriction in the consumption of the high income groups.

3.- The solution of restricting mass consumption cannot be perpetuated; firstly because present levels are unsatisfactory and secondly because such restriction of consumption is affected by transferring the margin of savings to entrepreneurs, and only a fraction of it is used for capital formation. Moreover, a proportion of the latter is represented by investment stimulated by the increase of demand of the higher income groups.

4.- That inflation may have dynamic effects is undeniable. It reduces the contraction of the economy and allows the investment coefficient to increase. But this implies an expensive and wasteful manner of securing savings and a regressive distribution of income, unadmissible from the structuralist point of view.

5;- In summary, structuralists regard the progressive distribution of income as a convenient measure to attain sustained growth. This implies the growth of effective demand, changes in the present patterns of consumption - increases in the supply of essentials and decreases in the supply of non-essentials - higher savings, and higher productivity. One of the necessary conditions to achieve compatibility between these variables would be an incomes policy; but one that does not freeze either wages or profits. What seems clear is that, without growth, inflation is the easy way out where different income groups compete in an illusory way for income. The political and social dangers of such an inflationary spiral are only too clear.

Dr. Prebisch puts it in the following words: 'These considerations allow to approach the complex problem of inflation in Latin America. In actual fact, it merges with the problem of development. There is inflation because the economy is structurally vulnerable, because of a regressive distribution of income, because savings are not sufficient to expedite investment. By means of an intensive economic development policy the maximum resistance can be offered to these inflationary forces and the policy of monetary stability can be upheld as an integral part of economic development policy (18)'.

(3) An 'Unorthodox' Structuralist Position.

There is one group of structuralists, as it has been said, which have a more permissive attitude towards an inflationary setting. It is presumably with them that monetarists are in bitter disagreement. With respect to income distribution such structuralists believe that rapid economic growth will make it more regressive. The reasons were suggested a long

time ago by the classical economists, but they have been re-emphasised more recently by the much publicised work of professor W.A. Lewis and others (19). In other words, there is also a possibility of benificial schumpeterian effects which inflationary pressures may exert upon the investment process in UDC.

We shall take here as representatives of this position the work of professor W. Baer and Mr. I. Kertenetzky (20) and that of professor G. Maynard (21), who although more cautious than the former still contemplates the possibility of 'forcing savings' through inflation. It would be possible to avoid this digression were it convenient to regard such work as 'non-structural'. It shall be considered structural work, however, for two simple reasons: agrowth priority and the existence of structural bottlenecks as the main causes of inflation. This is not to say that one has to go into a second confrontation between different varieties of Latin-Americcan structuralists, although this could turn out to be a revealing experience. That is, this section is only concerned with the problem of income distribution and inflation.

Professor Baer would concede from a start that inflation concentrates income in a regressive fashion, although not quite in t ese words. 'What hit home, as far as I was concerned, was professor Lutz' remark that forced savings is a bad thing, especially because you are producing growth at the expense of the poor, who are usually losing out in an inflation where forced savings occur... it is quite elementary to all of us economists that in a growing economy, and one which is starting to industrialise, a large proportion of the increment in the national product has to be reinvested... (in Brazil) the forced savings process did not result in a lowering of the populations' living standard.* It simply resulted in a redistribution of the increment in the national output in favour iof investments' (22).

This really means going into the opposite of what has been said:

1.- Inflation would have a favourable effect on growth, when it increases savings.

2.- Inflation may not misallocate investment (at least not the greater proportion).

3.- A progressive distribution is not necessary over the short-run for Latin-American growth.

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*This, by 1964, is a very debatable statement.

The ideas centre around professor Lewis who believes that an inflationary process can have benificial effects when it redistributes income to the saving classes who will turn it into productive investment. It follows that inflations which are useful to capital formation are self-destructive, in the sense that new capital will eventually produce a flow of consumer goods which will check prices or presumably lower them.

The second explanation is that inflation is a substitute for taxation. Since the fiscal system of most Latin-American countries is not well developed nor effective, inflation may be the best way out until the fiscal and institutional systems develop. It is interesting to quote what Dr. Navarrete, another Mexican economist, says about this with respect to Mexico:

"In 1934, whether you were a structuralist or not, a credit and financial policy had to be decided to carry out Mexico's first Development Plan. The Plan included rapid land reform and rapid industrialisation. Could we have established at the time either direct-income taxation or an indirect-expenditure tax system? Experience has shown that a modern tax system requires a modern administration. And this you cannot produce overnight. Could we have restored to a nonexisting capital market or could we have appealed to voluntary savings of the wealthy, opposed as they were to the Revolution? This is why Mexico, oin order to finance agriculture and industry, resorted at that time to an ample overdraft on the government account with the Central Bank. This action contributed to a 14% average annual rate of inflation in the late 30's and early 40's. The peso was twice devalued... But by 1954 Mexico could increase its tax burden: tax revenues amounted to 10% of GNP but added the whole of the public sector it reached 16% (today it is 26%). The security market expanded and now channels and finances at least 15-20% of domestic investment. Mexico is self-sufficient in foodstuffs. The rate of growth in per capita terms has been of 2% (1950-63) and there has been exchange stability for 14 years. It seems to me that in the absence of an adequate tax system and capital market to provide the financing for a sustained investment programme, inflation may serve for a time as a weapon to exact the needed higher volume of savings; but its usefulness wears off and inflation eventually becomes self-defeating as it encourages consumption in the private and public sectors. In Mexico we have solved the structuralist-monetarist controversy in a pragmatic way. This implies that there can be no structural justification for sheer monetary mismanagement and fiscal irresponsibility, but it also means that financial decisions have to be geared towards the field of investment, productivity and growth' (23).

Still, this may be taken as a warning against permissiveness with inflation. Together with the need of productive investment. With respect to inflationary investment, Professor Kaldor has developed the following ideas (24): An important priority facing UDC is the direction of a policy of investment and the reduction of structural bottlenecks (credit expansion) of the creation of demand through public works). Assuming perfect competition - and thus a market mechanism which allocates investment - inflation would increase 'differentials' and growth. A differential is a risk premium, small but above the rate of interest that induces greater investment. The larger the differential - in money or in real terms - the larger investment would be. A positive feature of inflation, through the increase in the differential, would be higher savings and lower consumption. Wages can only be constant, under the assumption of higher profits and a higher propensity to save. In such a model, moderate bounds of inflation reduce consumption and increase investment, capital accumulation and growth.

But a small rate of inflation that starts in profits, will gain momentum and turn itself into a wage-price spiral and hence into a costo inflation. The picture is complicated when imperfections - a regressive distribution of income unemployment, and so on - are introduced into the model. In fact, investment will tend to be misallocated and savings will tend to escape into foreign exchange. With inflation and without perfect competition, differentials will be reater in non-essential industries than in agriculture or in certain industries. Inflation thus reinforces bottlenecks, monopolistic positions, and improductive investment. The question of whether inflation is favourable or unfavourable to growth resolves itself in evaluating the short-run consequences which might be positive with the long-run negative consequences. Simplistically, Mr. N. Warman concludes that the long-run negative consequences appear 'very soon'. Moreover, the question whether the rate of inflation can be kept moderate remains.

For professor Maynard (25) an ideal case for using inflation to promote growth would involve the following conditions:

1.- The existence of surplus labour which can be used to produce capital goods, with no real cost in terms of consumer goods.
2.- The presence of money illusion in the labour supply and savings schedules.
3.- A high propensity to save in those groups which gain with inflation.
4.- A general agreement as to the desirable distribution of real income and consumption.

5.- Productive investment projects.

6.- Strong monetary authorities in the event of hyper-inflation.

Are these conditions present in the semi-industrialised Latin-America countries? The most important one is agreement on the distribution of sacrifices and gains arising from growth; something which, as was seen woul involve a policy on wages and profits. Professor Maynard only commits him self to saying that the conditions are more lilely in advanced countries, rather than in UDC.

Still, one is left with professor Baer's and Mr. Kertenetzky's proposition that 'in many UDC inflation is inevitable and beneficial up to a certain limit. The policy* should be 'warranted vs. unwarranted rates of inflation')26). In another article (27) the first author, however, say ' the object of this paper has not been to give a full-fledged defense of inflation as the best method for growing or the most efficient one'. Nonetheless, the professor goes on to argue that inflation did not misallocate investment in Brazil.** It should be clafified that his experience is base mainly on a thorough study of the Brazilian case; however, he believes tha such an experience should be projected further. The main body of his arguments on the relation between Brazil's severe inflation and savings and investment is resumed on his article Brazil: Inflation and Economic Efficiency (28). Professor Baer arrives to the following set of conclusions based on Brazilian experience from 1950 to 1960:

1.0 If investment allocation was not perfect there is neither evidence of negative inflationary causes:
   a) Inventory investment did not tend to increase with inflation.
   b) Investment was not channeled excessively to construction.
   c) Growth was higher in capital formation industries than in consumer industries.

2.- Savings of corporate industries were a main source of finance.

3.- Relative price fluctuations were not noticeably influenced by inflationary forces, but by direct government policies (price controls) or to natural changes in prices, reflecting changes of supply and demand.

4.- Although the real rate of interest was in fact tnegative this was immaterial: most large firms in industry do not rely much on credit fom financial institutions.

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* Mr. N. Warman says that inflation is not a method, but a consequence of
** structurally difficult growth.
For an alternative position see the cited work of Dr. Simonsen.

The authors argue on the last resort that inflation resulted in a higher rate of growth because the factor proportion of wage income fell (30). Structuralists, as has been said, regard this as a dangerous state of affairs which may lead to some growth but inevitably ends up with more inflation and lesser growth. In fact, for the authors the explicit assumption is that inflations which lead to growth eventually reduce the rate of inflation, something which is certainly not present in Brazil. There are, of course, numerous studies which have tried to prove that inflation has had very negative effects on savings and investment. The subject was discussed in Part II, chapter 2, section d. With respect Brazil one may refer back to the work by Dr. Simonsen mentioned; to a special study by ECLA (29); and also to Mr. A. Ruderman's article (30).

The basic defense for the former authors is the fact that Brazil was experiencing fast growth and inflation. From 1950 to 1960 the compound rate of inflation was an average 25 to 30%, while GNP grew at a rate of 6-7%. But from 1962 onwards, while inflation was well above 35% (see Part I, table XII) the rate of growth fell down dramatically and with it all the alleged favourable effects of inflation. Per capita income only averaged 0.7 between 1960 and 1966 and was reduced to - 1.2 in 1966 (32). Thus the only example of a possible positive correlation between growth and inflation in semi-industrialized Latin-American countries has gone sour*

The object of the exercise has been to see how 'unorthodox structuralists' have to assure fast growth and instability with a regressive distribution of income. Conversely, structuralists in general seek a rate of growth compatible with a progressive income distribution.

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* Some structuralists are going to argue that if the rate of growth in out put fell, it was a consequence of the stabilization programme introduced in 1964 by the military junta. The point remains that since 1962 growth fell and spiralling inflation was very likely miss-allocating investment.

4.- Prices may be rising in part because the community expects them to rise rather than because of pre-existing pressures of demand against resources.

5.- When inflation is a relatively open contest among competing groups for the distribution of income, this happens where inflation has led to little or no gowth. This has been important in Argentina, Chile, and Uruguay, but not in Brazil; and this is from where professor Baer starts to develop his argument.

Still, up to this point, it is for everyone to decide how the author's exposition stands before the structuralist arguments stated in the previous section, the exposition in the present one, and the monetarist survey carried out in a different chapter.

Returning to our problem of income distribution, it is fundamental to establish that professor Baer's argument depends essentially on 'the fact that prices have to keep ahead of labour costs.' He develops this assumption, together with Mr. Kerteneztky, in two other of his articles to which we shall now turn (30).

DISREGARD

The function of the inflationary process, write the authors, is to force the consuming sector to save in order to reduce imports, and to increase planned productive capacity. Such savings would not be possible if the non-investing sector where strong enough to safeguard its money earnings. A lag in wages and consumption is thus a sine qua non for making the inflationary process an ultimately productive one.* It should thus be obvious that deliberate anti-inflationary policies would be harmful to the growth objective. For example, monetary policy in contracting the supply of money would not ensure an optimal rate of investment in basic overhead capital facilities, in import-substitution, and new export industries. Is there a chance for inflation not fulfilling its purposes, ask the authors, or degenerating into hyper-inflation? This depends for them on the degree to which wages and salaries advances can be kept in check, thus avoiding the wage-price spiral, and to the degree that inflation does misdirect resources into improductive investment (something which perhaps beg the question, since effective demand will be presumably for luxury investment). It should happen that by the time the labour sector is shophisticated so as to succeed in income rises, the growth of the fiscal machinery and other control mechanisms will have been such so as to direct resources into growth.

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*The statement, of course, ignores the weight of the theoretical arguments of the previous section.

(4) Trends in the distribution of income.

The distribution of income in Latin America, be it by factor share, by personal income groups, by sectors of the economy, or by regions within each country, is very unequal. It has been discussed how such a distribution can be measures in terms of personal income groups. Before going into the subject, however, the regressive distribution can also be understood comparing in relative terms the position of Latin America with that one of Western Europe and the United States, According to a theoretical study of ECLA (33) the differences would be the following (See Tables I and III):

1.- There is greater concentration of income in a small percentage of the population which is the social sector that the highest levels of income. Where as in Latin America a third of all income is concentrated on 5% of the population, in the industrialised Western countries the top income group, representing the same proportion of total population, receives a much lower proportion of total income, 21%

2.- In Latin America the social sectors in the lowest income groups, representing 50% of the population, receive only 16% of total income, while in the industrialised countries the same group receives at least 21% of total income.

3.- Comparison of the lowest income groups with the average of the region, gives an index of only 32 in Latin America and 45 in the industrialised countries.

4.- Comparison of the income levels in the highst gorups with the average also reveals substantial differences. In Latin America the index is 6.5 times the average, whereas in advanced countries it is 4.2 times the average.

5.- Moreover, in Latin America the high group is 20 times the lower group, whereas in advanced countries it is only 10 times as great, and in the United States even less.

Mrs. Navarrete illustrates the same phenomenon in the following table (34):

TABLE I

Total Income Concentrated in the Highest Income Group

(%)

Country	Year	% of families	% of personal income
United States	1950	5	21
Great Britain	1947	5	24
Mexico	1950	5	40

TABLE II

Conjetural Distribution of Income in Latin America 1960

Category	Proportion of the Population (%)	Proportion of Total Personal Income	Average Annual Per Cap Income Ratio to Average	USA Dollars
I	50	16	30	120
II	45	51	110	400
III	3	14	470	1750
IV	2	19	950	3500
TOTAL	100	100	100	370

Source: The Economic Development of Latin America in the Post-War Period U.N., N. Y., 1964.

TABLE III

Relative Differences in the Distribution of Personal Income
In Latin America, Western Europe and the United States

me kets	Population	LATIN AMERICA Income	With Respect to average personal Income(100)	WESTERN EUROPE Income	With Respect to average pers. income(100)	UNITED STATES Income	With Respect to average pers. income (100
igh	5	33	660	22	436	20	400
nter- ediate	45	51	113	56	124	57	127
ow	50	16	32	22	44	23	46

ce: See previous Table

The next step is to return to personal income groups and to try to es tablish the trends in income distribution in the semi-industrialised Latin American countries. 'As in almost every part of the world, writes Dr. Sun kel, statistics on the distribution of income are also in Latin America rather scanty and of doubtful reliability (35).' Taking this into conside ation, the results of several surfeys - taken during the last decade and t early part of this one - for only three countries have been united in Tabl IV.

Both Argentina and Mexico show a regressive trend in the distribution of income according to personal income groups. There has been a decline i the income earned by the poorer 60% of the population. But while in Argen tina it was the upper 10% of the population which gained at the cost of th rest, of the 90% of the population; in Mexico the upper 10% and the lower 60% of the population lost and contributed to an increase in the middle 20 of the population.

In Chile, on the other hand, the distribution was more progressive from 1950 to 1956: the upper 10% lost considerably to the middle 30% and to the lower 60%. The trend, however, was reversed by 1960, where once again the lower and middle group of the population (90%) lost to the high- income group, although less considerably. Looking at a recent survey (see Table V) - which unfortunately was taken only for urban Santiago - it can be seen that in 1965 the distribution of income was very regressive still (the lower quarter of the population had only 6.18% of the total income). If the Chilean pattern were the same as that of Latin America, an inclusi of the rural sector would make the redistribution worse.

A hypothetical income distribution for Brazil reveals a similar re- gressiveness, although more marked. If this were the case 5% of the popu- lation receives 34% of total income, while 50% of the population ohly re- ceives 16% of such income.

The persistence of such a regressive distribution of income, in the four most industrialised countries of the region, has led structuralists to emphasise the stagnating and inflationary role of a lack of effective demand.

The apex of the pyramid, resulting from the distribution (the upper 10% of the population) represents a large consumer market, whose purchas- ing power may be sufficient to ensure a market for durable goods or, when these are not domestically produced, to demand imports. The intermediate group, which represents about 30% of the population, may not represent any considerably purchasing power, except for essential products. Lastly

TABLE IV

Surveys of Income Distribution by Personal Income Groups
(% of Total Population and Income)

Argentina

Population	1953	Income	1961
		1959	
0 - 60	31.7	28.6	30.2
61 - 90	31.2	29.1	30.7
91 - 100	37.1	42. 1	39.1

Source: U. A. Paraíso, Economic Bulletin for Latin America, Vol. XI, 1966

Chile

Population	1950-52	1954-56	1958-60
0 - 60	18.5	24.0	24.0
61 - 90	34.8	42.2	40.3
91 - 100	46.7	33.5	35.7

Source: O. Sunkel, The Structural Background of Development Problems in Latin America, op. cit.

Mexico

Population	1950	1957	1963
0 - 60	24.6	21.2	23.3
61 - 90	26.6	32.1	36.7
91 - 100	49.0	46.7	40.0

Sources: I.M. Navarrete, La Distribución del ingreso en México, op. cit.
A. Labra Manjarrez, La concentración del ingreso en México, Revista de Comercio Exterior, México.

Brazil: Hypothetical Income Distribution in 1960

Population	Income
0 - 50	16.0
51 - 95	50.0
96 - 100	34.0

Source: The growth and decline of import-substitution in Brazil, Econ. Bulletin for Latin America. VOL. IX. 1964.

the large part of the population (more than half) may be at subsistence levels.In other words, the size of the market has been determined by a slow growing effective demand so this for structuralists is a cause of inflation and slow growth. Before going into the existing regressive distribution of income and inflation, let us look with more detail into Argentina and Mexico, where data was available (See Table V).

In Argentina by 1961 there is a considerable concentration of income in the highest income groups. The top 30% of the personal income groups received 61.6% of all income, the top 5% alone received 29.3% and the top 1% received 14.5% of all income. However, the sharpest increase in inequality appeared in the 1959 estimate, which was characterised by a substantial increase in the share of income received by the top 10% at the expense of all other groups. Each group below the top 10% had a smaller share of the total in 1959 than it had received in 1953. Comparing 1953 and 1961, a significant increase in inequality occurred, and the shift occurred in the same group: the top 10% increases its share ot total income, and all other groups lost. The relative gains and losses were not, however, evenly shared. Nearly all the gains went to the top 5%. While the 5% just below the top group gained, the gain was much smaller. Among the groups which lost, the lowest 60% group lost considerably more in relative terms than the other groups. Thus, from the early 1950's to the beginning of the 60's a significant regressive movement occurred in the distribution of income. The lowest 60% of all income groups reduced their share in total income. The top 10% achieved a substantial increase in its share of the total, and this gain was largely concentrated in the upper half of the group.*

From her study of income distribution in Argentina, Miss Paraíso deduced some very important conclusions in the context of this work (36):

1.- The broad conclusion which can be drawn is that the overall inequality in the distribution of income results in a large extent from differences in income levels of wage and salary earners on the one hand, and the entrepreneurial group on the other. Wage and salary earners' families dominate the lower part of the distribution, then steadily decline in relative importance, and account for only slightly over

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*The analysis in detail of these changes, particularly, with respect to inflatiin and the various methods taken to control it, is being carried out currently by the Argentinian Joint Tax Committee in collaboration with ECLA and the OAX (37). The results, unfortunately, have not yet been made public.

of the families in the highest income decile; and in the top 1% they less than 10% of the families. This goes on to prove the point made tially: personal income groups coincide, although obviously not per- tly, with the distribution of income at factor cost.

income structure in Argentina reveals a predominance of a large number individual producers with relatively large incomes. This type of econ- structure has often been associated with a tendency towards high unit s-ups and low sales volume per individual enterprise. It has as its nterpart relatively high prices, especially in those lines where large le production may result in substantial economies of scale. The size the market is thus restricted below what it might be in more favourable cumstances, and the lower income groups in particular remain excluded n the market of many products. The limitation is thus one where a small ket encourages small-scale operations.

Turning to Mexico, it is convenient to note the conclusions reached on subject in two surveys, one for 1950 and another for 1957. In the first, Flores, found a distribution of income for the employed where 1000 indiv- als received one third of the total income and where 90% of all the em- yed received the rest (37). This state of affairs, in relative terms, deteriorated further by 1957. For this year Mrs. Navarrete found the lowing tendencies (39):

lower 20% of the incomes groups last income both in relative and ab- ute terms. Thus the poorest population did not only not benefit from wth, but it lost.

next 40% of the income groups, lost in relative terms, but received her real incomes.

next to the top group - that is, 37.6% of the population - increased ir relative and absolute level of income. The top 2.4% of the popula- n lost in relative terms and only slightly in absolute.

Turning now to Table V, the overall picture from 1950 to 1963 seems be the same. The lowest income groups have either deteriorated their rticipation in total income (the lowest 20% of the population) or remained gnant in their participation (the second lowest 50% of the population). sidering the growth of income, the regressiveness in its distribution increased. However, within the middle group (that one which includes of the population) there has been a progressive distribution of income ing from the top 10%. Two tendencies should be distinguished in the 10% group. From 1950 to 1957 it was the upper 5% which lost to the ldle group, while the lower 5% increased its share. From 1957 to 1963

TABLE V

Some Details on the Income Distribution According to Income Groups

Argentina 1961

(%)

Income Groups	Proportion of Total Income
0 - 20	7.1
21 - 70	31.3
71 - 95	32.3
96 - 100	29.4

Source: U. A. Paraíso, op. cit.

MEXICO

(%)

Income Groups	1950	1957	Income Groups	1963
0 - 20	6.1	4.4	0 - 25	6.1
21 - 70	24.5	24.2	26 - 68	24.2
71 - 90	20.6	24.7	69 - 89	35.9
91 - 96.2	16.7	22.7	89 - 96	10.6
96.3 - 100	32.3	24.0	97 0 100	23.2

Sourdes: I.M. Navarrete, op. cit.

A. Labra Manjarrez, op. cit.

Great Santiago

(1965)

Income Groups	Proportion of Total Income
24.3	6.18
52.6	39.15
22.4	54.67

Source: ECLA, Economic Survey of Latin America, UN, N.Y., 1965.

it was the lower 5% which lost dramatically to the middle class, while the upper 5% maintained its share. Hence in Mexico there is a regressive distribution of income towards the poorer 70% of the population; and a progressive distribution of income towards the middle 20% of the population, coming from varying gorups of the top 10% of the population.

While the cases of Argentina, Chile and Mexico may serve to illustrate the obvious regressive distribution of income - and the trend towards more regressiveness - in our countries, trying to establish a relationship between this variable and the rates of growth and inflation may prove unwarranted. Argentina, it is true, has had a regressive trend accompanied by slow growth and high inflation. And Mexico, it is also true, has had a somewhat progressive distribution trend among the top 30% of the population accompanied by growth and increasing stability. Would this examples satisfy structuralists? It seems unlikely because Chile has had both regressiveness and progressiveness, in the above terms and its growth rate is lower than Argentina's and its inflation high. At these levels of generality, it appears best not to venture judgement. Still, the next step is to see the income distribution by factor share.

Table VI distributes income between wages and salaries and entrepreneurial and property income in the selected Latin-American countries. The distribution is not considered an alltogether significant index; mainly because there is an unknown number of entrepreneurs who pay themselves in wages. However, for the 'measurement' of the structuralist argument, one may consider it an approximation under the following assumption:

1.- That the distribution coincides significantly with the distribution according to personal income groups, as in the cases of Mexico and Argentina. That is, that the low income groups are mostly formed by wage.earners, while the upper income groups are mostly formed by income earners.

2.- That entrepreneurs, although they save dispose of a large fraction of their income in the consumption of non-essentials, in imports of consumer goods (seeking ways in which to evade tariffs and controls) and in investments and travel abroad, (se[illegible]

3.- That the higher the percentage of profits and other property income the more the regressiveness in the distribution and vice-versa.

TABLE VI

Distribution of Income According to Income Shares

(Percentage of National Income [a] at Factor Cost)

Country	Period	Compensation of Employees	Entrepreneurial and Property Incomes
Argentina	1950-52	47.4	46.3
	1959-61	40.5	52.0
Brazil	1950-52	42.5	53.9
	1959-60	47.3	46.7
Colombia	1950-52	39.0	57.1
	1959-61	42.0	52.5
	1963	46.5	47.3
	1965	44.6	49.6
Chile [b]	1961	46.2	53.8 [c]
	1963	43.4	56,6
	1965	46.8	53.2
Peru	1950	55.1	48.1
	1958	37.6	45.8
	1960	37.1	47.3
	1963	47.8	41.4
Uruguay	1955	53.1	45.2
	1960	48.1	49.3
Ecuador	1950-52	48.2	45.6
	1958-59	51.8	40.3
	1962	51.2	39.4
	1965	50.0	37.7
Mexico [d]	1940	36.3	64.0 [c]
	1950	28.9	71.3 [c]
	1960	35.7	64.6 [c]
	1966	32.5	67.7 [c]
Bolivia	1958	43.5	58.2
	1960	42.6	56.6
	1965	43.9	51.5

a) Source: Boletín Estadístico de América Latina, UN, N.Y., 1964 and 1967

b) ECLA, Economic Survey of Latin America, UN, N.Y. 1965.

c) All non-wage-sahry income

d) Cited by A. Buira, Development and price stability in Mexico, Weltwirtschaftliches Archiv, Hamburg, 1968

The structuralist argument would then be one where an increase in the percentage of profit and property incomes results in a regressive distribution. The fact, together with the other structural bottlenecks such a distribution enhances, may result in continous inflation and low growth rates.

In these terms, there is evidence for the thesis in Argentina (from 1950 to 1961) and in Uruguay (from 1955 to 1960). In both countries wage receipts fell considerably, inflation was very severe, and growth came to a halt.

On the contrary in Colombia and Peru* (from 1950 to 1963) there was a consistent movement towards a more progressive distribution of income, something that was accompanied by relatively high rates of growth. Moreover, inflation was much milder than in Argentina dna Uduruay. Still, a more progressive distribution does not seem to have brought along greater price stability.

Also in Brazil during the last decade there was only an apparent movement towards a more progressive distribution of income. One has to remember professor Baer's warning about the necessity of having the distribution of oincome after taxes. But, of course, this criticism is applicable to all countries. Nonetheless, the Brazilian figures are only significant for urban population since rural wages have not been included - and rural population amounts to one half the total. Still, taking the index at face value, in Brazil a more progressive distribution was accompanied by a high rate of growth and an increasing rate of inflation. In Chile, considering the previous tables, there appears to be no change in the first half of this decade in the distribution of income.

Turning now to the less inflationary countries of the group, Mexico and Ecuador, one could make a case for structuralism for the latter. The distribution of income in Ecuador appears to be rather progressive and increasingly so from 1950 to 1965. This structural characteristic was accompanied by a mild rate of growth and a very mild inflation. In Mexico it appears that the distribution of income became very regressive during the 1940's which is also a relatively more inflationary decade. From 1950 there appears to be a change towards a more progressive distribution and inflation starts to become milder in the late 1950's.

Still, by 1960 the distribution is regressive as compared with 1940. Moreover, again in 1966 the distribution appears to be still more regressive. The fact that the process has presented fast growth and increasing

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*Although the 1963 ratios Peru look 'too high to be true'.

stability presents a case all its own in the context of the controversy.

Thus the structuralist argument on the inflationary forces of a regressive distribution of income rests on the theoretical proposition deviced in the first part of the section and on this scanty evidence. It is obvious that the subject represents a new field of research, perhaps more pertinent to specific cases and one much in need of appropriate statistical information. Nonetheless, it is convenient to insist that, when approaching the problem of income distribution in Latin America, one should be careful not to apply criteria deviced for the savings and consumption problems and the combination of factors of production peculiar to advanced countries.* This seems to be the main proposition of the structural thesis, especially in the words of Dr. Prebisch.

The object of this long chapter, formed by an introduction and five sections, has been to construct a structuralist theory on the causes of inflation, where each cause was studied more or less in abstraction from the others. A causal relationship between the different structural bottlenecks of inflation - in agriculture, foreign exchange, industry, public investment, and income distribution - could in principle be established - between themselves and each with respect to an appropriate price index - in a multiple regression model, where different causes were given different weights. Moreover, to such a model one would have to add the quantitative impact on prices of what structuralists call propagating causes of inflation**: the supply of money, public deficit financing, wage increases and mark-up rpricing, and devaluation.

In all cases, when it was possible, the analysis has included theoretical propositions and a very general empirical enquiry. Thus statistical relationships between the price level and the different structural bottlenecks have been established with some interesting results. The same system was applied in the previous chapter to the monetarists' causes of inflation.

Attention will be given in the following chapter to what has been called the structuralist reform. That is, to the subject of the 'structural' policy measures recommended to reduce structural bottlenecks and - our main interest - the future of the inflationary spiral, in the event these measures were adopted. In very crude terms this places the following question. Obviously the reduction of structural bottlenecks would be 'the way' toward stability and external equilibrium, but would the policy measures with suhh a global objective stop or further enhance the rate of inflation?

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*We shall return briefly to these variables in the next chapter.

**We shall turn to the subject below (see next part)

Footnotes to Chapter 3

(a)

(1) J. Grunwald, op. cit. (pag. 110).

(2) Idem, op. cit. (pag 109-110)

(3) R. Prebisch op. cit. (pag. 2).

(4) Idem.

(5) D. Felix, An alternative view of the 'monetarist-structuralist' controversy in op. cit. (pag. 91).

(6) D. Felix, Monetarist, structuralists, import-substituting industrialisation: a critical appraisal, in op. cit. (pag. 377).

(7) R. Prebisch, op. cit. (pag. 1)

(8) Idem, op. cit. (pags. 23-24).

(9) A. Harberger, op. cit. (pag. 311)

(10) D. Felix, op. cit. (pag. 92).

(11) Idem (pag. 86).

(12) Idem (pag. 87).

(13) Idem (pag. 86).

(14) D. Seers, A theory of inflation and growth in underdeveloped economies based on the experience of Latin America, Oxford Economic Papers, Oxford, June, 1962.

(15) J. Grunwald, op. cit. (pag. 293)

(16) C. Díaz Alejandro, op. cit. (see Chapters VI and VII).

(17) I.-R. Nurkse, Problemas de formación de capital, FCE, Mexico, 1959.

2.-J. S. Dusenberry, Income, savings and the theory of consumer behaviour, Harvard Press, Mass. 1949.

3.-A.O. Hirschman, La estrategia del desarrollo económico, FCE, Mexico, 1961.

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5.-P. Streeten, Unbalanced growth, OEP, 1959.

6.- K. Ohkawa and H. Rosowsky, The role of agriculture in Japan's development in Economic Development and Cultural Change, Chicago, 1960.

(18) G. Maynard, Economic development and the price level, MacMillan, London, 1963, (pag. 107).

(19) R. Prebisch, op. cit.. (pag. 15).

(20) O. Sunkel, op. cit. (pag.541).

(21) ECLA, United Nations, New York, 1966 (pag 51).

(22) O. Sunkel, op. cit. (pag. 54).

(23) G. Maynard, Inflation and growth: some lessons to be drawn from Latin America, Oxford Economic Papers, 1961, (pags. 184-202).

(24) United Nations, Selective expansion of agricultural production Latin America, New York, 1955 and Agriculture in Latin America, ES of LA UN, N. Y., 1968 (See Chapter I).

(25) O. Seers, op. cit. (pag. 175).

(26) R. Prebisch, op. cit. (pag. 1).

(27) G. Maynard, Economic development and the price level, op. cit. (pags. 254-60).

(28) United Nations, Selective expansion of agricultural production in Latin America, New York, 1955 (pag. 21).

(29) UN, The economic development of Bolivia in Econ. Bull for L.A., Vol. II, No. 2.

(30) L. Currie, Accelerating development, McGraw-Hill, N.Y., 1966 (pag. 186).

(b)

(1) R. Prebisch, Nueva política comercial para el desarrollo, FCE, Mexico City, 1964.

(2) J. Noyola, El desarrollo económico y la inflación en México, Investigación Económica, Mexico City, 1956.

(3) R. Prebisch, Economic development or monetary stability: the false dilemma, op. cit. (pags. 3 - 4).

(4) D. Felix, op. cit. (pag. 88-9).

(5) R. Prebisch, op. cit. (pags. 5 - 6).

(6) Idem (pag. 10).

(7) Idem.

(8) D. Seers, A theory of inflation and growth in underdeveloped economies based on the experience of Latin America, in Oxford Economic Papers, Oxford, 1962 (pags. 175-81).

(9) ECLA, El desequilibrio externo en el desarrollo económico latinoamericano (E/cN. 12/428; ECN12/429; and ECN12/364).

(10) S. Sunkel, The structural background of development problems in Latin America, op. cit.

(11) CEPAL, Aspectos financieros de las economías latinoamericanas, 1964. Mexico City, 1964. (pags. 239-54).

(12) J. Grunwald, op. cit. (pag. 297).

(13) J. Grunwald, idem (pag. 301).

(14) Idem (pags. 297 to 302 and 310 to 317)

(15) ECLA, The external financing of Latin America, UN. 65II 6.4, 1964.

(15b) C. Zondag, op. cit. (pag 192).

(16) ECLA, Economic Survey of Latin America, UN, New York, 1966 (pag. 91).

(17) Idem.

(18) Idem, (pag. 95).

(19) ECLA, The external sector in Economic survey of Latin America, UN, N.Y., 1968 (pag. 78).

(20) Idem.

(21) J. Grunwald, op. cit. (pags. 302-3).

(22) Idem, (pags. 302-9).

(c)

(1) ECLA, The growth and decline of import substitution in Brazil, Economic Bulletin for Latin America, Vol. IX, UN, New York, 1964. (pag. 2).

(2) R. Prebisch, op. cit. (pag. 4).

(3) ECLA, idem, (pag. 9).

(4) J. Grunwald, op. cit. (pags. 308-9).

(5) O. Sunkel, op. cit. (pags. 52-3).

(6) R. Prebisch, op. cit. (pag. 14).

(7) ECLA, The Economic development of Latin America in the post-war period, UN, N.Y., 1964.
ECLA, Theoretical and practical problems of economic growth, (E/CN/12/221).
ECLA, The process of industrial development in Latin America, UN, N.Y., 1965.

(8) Idem.

(9) R. Prebisch, op. cit. (pag. 5).

(10) ECLA, op. cit. (pag 18).

(11) Idem, (pag 19).

(12) Idem, (pag. 49).

(13) A. Macario, Protectionism and industrialisation in Latin America, in The Econ. Bulletin for Latin America, Vol IX, 1964.
R. Izquierdo, Protectionism in Mexico in Public Policy and Private enterprise in Mexico, Ed. R. Vernon, Harvard University Press, Mass, 1964.

(14) O. Sunkel, op. cit. (pag. 53).

(15) D. Felix, Monetarists, Structuralists and import-substituting industrialisation: a critical appraisal in Inflation and Growth in Latin America, Eds. W. Baer and I. Kertenetzky, Richard Irwin, Ill., 1964. (pags. 382-4).

(16) ECLA, Theoretical and practical problems of economic growth, op. cit.

(17) R. Prebisch, op. cit. (pag. 14.

(18) Idem, (pag. 5).

(19) ECLA, op. cit., (pags 56-57).

(20) Besides the article on Brazil, ECLA has published the following comprehensive studies, although they are slightly out-dated: ECLA, Economic studies of Latin America, 1956 and 1952, UN, N.Y. The 1957-8 studies of El desequilibrio externo en América Latina are also very helpful (ops. cit.).

(21) ECLA, op. cit. (pags. 23-24).

(d)

(1) O. Sunkel, op. cit. (pag. 54)

(2) ECLA, Government income and expenditure in Economic Survey of Latin America, UN, N.Y., 1956. (pag. 211).

(3) J. Grunwald, The structuralist school on price stabilisation and economic development: the Chielean case in Latin American Issues, op. cit, (pagg 114-5).

(4) R. Nurkse, Problems of Capital formation in underdeveloped countries, op. cit. A. O. Hirschman, The strategy of economic development, Yale University Press, New Haven, 1958.

(5) ECLA, op. cit. (pag. 113).

(6) C.H. Zondag, op. cit., and J. Pincus, The economy of Paraguay, F. A. Praeger, N.Y., 1968.

(7) ECLA, Uruguay: Inflation in Economic Survey for Latin America, UN., N.Y., 1966 (pags. 137-9).

(8) G. Maynard, Economic development and the price level. op. cit. (pag 247

(9) ECLA, Economic Survey of Latin America, 1966 (pag. 56).

(10) ECLA, op. cit. (pag 118-123).

(11) Idem, (pag 122).

(12) Idem (pag. 163).

(13) G. Maynard, op. cit. (pag. 249).

(14) Idem.

(15) ECLA, op. cit. (pag. 131).

(16) O. Sunkel, op. cit, (pags. 55-6).

(17) G. Maynard, op. cit., (Pag. 250).

(18) ECLA, op. cit., (pag. 135).

(19) ECLA, op. cit., (pag. 58).

(20) O. Sunkel, op. cit., (pag. 56).

(21) ECLA, op. cit., (pag. 58).

(22) ECLA, op. cit. (pag 153).

( ) Idem (pag. 153).

(23) ECLA, Government income and expenditure, op. cit. (see pags. 152-165) CEMLA, Los mercados de capitales en América Latina, México, 1966.

(e)

(1) L. Reynolds, Income distribution in Inflation and growth in Latin America, op. cit. (pag. 509).

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PART III

Economic Policy

CHAPTER I.

The Structuralist Reform

The question of what causes inflation is usually inseparably linked with the problem of how to cure it. The object of this chapter, thus, is to examine the policy measures and economic objectives that structuralist propose. This is, of course, en extensive subject which, according to the purpose and scope of the work, can only be examined here in the general terms of Latin America's inflationary spiral. Moreover, such an examination ought to be done following the outline established with respect to the Monetarist-Structuralist Controversy. Broadly speaking this can be done in the following two ways+

1.- Presenting in a straightforward way the policy recommendations structuralists make as a result of the study of the structural bottlenecks that face our Latin-American countries; and examining them in terms of internal stability and external equilibrium priorities.

2.- Presenting the structuralist point of view with respect to orthodox stabilisation programmes; and, thus indirectly examining what they have to say when confronted with the policy measures that hope to attain price stability as a primer objective, which they tend to oppose.

Before going into the exposition system, however, it is convenient to repeal a few of the structuralist and monetarist positions that have already been stated along the work; and that should form a background for the present chapter.

The proposal of 'a structuralist reform' places a simple question. Are the structuralist policy objectives - growth, employment, redistribution of income and equilibrium - feasible or merely academical? Still, in simpler words it means asking oneself whether the growth and stability priorities are compatible in Latin America. Dr. Prebisch, in a complex manner, rejects the idea of a policy dilemma, as we have seen, and states that, with a relevant economic criteria, they are indeed compatible.* Moreover, structuralists, according to professor Grunwald, believe that price stability can only be attained by economic growth, and not vice-versa (1). Let us remember rapidly how Dr. Prebisch explains the policy criteria of a structuralist reform (2):

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* The analysis of this hypothesis is our main concern here.

1.- ECLA does not believe that inflation is inevitable in the economic development of Latin America.

2.- It is agreed that a supreme effort must be made to arrest inflation and achieve stability, but not at the expense of a decline, a stagnation, or of a slowing-down of the rate of development.

3.- The general mistake persists of considering inflation as apurely monetary phenomenon to be combated as such. Inflation cannot be explained as something divorced from the economic and social maladjustment of these countries; nor can serious thought be given to an autonomous anti-inflationary policy, as if only monetary considerations were involved. It must be an integral part of development policy.

4.- Economic development calls for a constant change in the forms or production, in the economic and social structure, and in the patterns of income distribution. Failure to make these changes - or to adopt them only partially - leads to the maladjustments which release the powerful forces of Latin-American inflation. This should not be taken to mean that inflation is inevitable. To avoid inflation, however, there must be a policy of economic and social development, in other words, an essentially new approach. This is not merely a technical problem it is essentially a political one.

5.- These reforms should unable the economy to grow faster than primary exports, to cushion the internal impact of their fluctuations, and to remove obstacles to development.

6.- Rightly considered, it is a change in economic conditions that favours the action of inflationary foces. But, if development policy promoted a steady growth in income and if income distribution were progressive the maximum degree of resistance to inflation would be ensured, whereby to maintain monetary stability.

7½- In reality it is not difficult to maintain monetary stability in a situation of relative economic stagnation. But social pressures act on this precarious equilibrium and inflation puts an end to monetary stability. New social groups force their way into politics and economic affairs and resort to inflation. Thus inflation is a manifestation of economic and social change, an essential dynamic phenomenon. Consequently, campaigns to prevent it cannot be only autonomous monetary measures, but must form part of a general development policy.

8.- The orthodox position ignores the phenomena of economic development. (inflation is attacked only with the help of deflationary measures). This is much to be regretted: monetary policy should not be expected to yield results which it cannot produce alone. It is impossible to combat inflation or prevent it by purely monetary measures; they must be part of an economic development policy which ensures structural equilibrium.* The main objective of a sound monetary policy is to stabilise the external equilibrium of the economy; not, however, its structural equilibrium. Structural equilibrium is not a matter for monetary policy.

9.- Neither inflation nor orthodoxy is the conclusion of Dr. Prebish. The time has come to formulate a monetary policy which meets the requirements of an economic development policy. The theoretical defense of orthodoxy, on the other hand, will strengthen the notion that economic development and monetary stability are incompatible concepts. And this is certainly not: monetary stability is indispensable to the steady development of the economy. Once structural equilibrium has been established by virtue of an energetic development policy, monetary policy can perform its functions of correcting deviations therefrom.

10.- If the proposed system is not applicable, the future is bleak. Because inflation as an alternative leads nowhere, for it corrodes the economy and dangerously disrupts society.

Thus our main interest is to discuss and present briefly this system that would make growth compatible with domestic and external stability. And describe, as professor Seers puts it, 'that a country which pursues stability at the expense of growth, may find that it ends up with neither' (3). The thesis is one where stability cannot be hoped to be achieved in isolation of the growth problem of the economy; that is, outside a development policy. Moreover, it should be clear that inflation is not regarded by structuralists as a 'policy tool'. It is, in words of Mr. Felix, 'a manifestation of a mal-deformed economy' (4).

Unfortunately, the links between growth and inflation are not helpful in such a manner that controversy can be avoided - despite the previous statements. Professor Seers puts the conflict in the following ideas (5):

1.- The structural characteristics of Latin America imply that monetarist policies are insufficient to ensure that transformation and economic growth take place at a fast enough pace.

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* (See footnote in the following page).

2.- The question is not whether inflation is helpful to growth. There is no need to list the distorting effects of inflation in the long-run. Other things being equal stability favours growth and governments who are too expansive in monetary policy aggravate the problem.

3.- The question of whether inflation causes or hinders growth or whether inflation is cost-induced or demand-induced, or how much inflation can be really afforded are really irrelevant questions derived from foreign, not Latin-American experience.*

4.- It is more fruitful to ask whether rapid growth can take place without price increases, unless export markets are booming. So far as the sta tistics can be trusted, the national product has not grown significantly faster than exports without at least a moderate degree of inflation. Suppose it is really hard for structural change to occur without price rises: then the attempt to supress inflation by financial policy can only succeed if structural change, and thus development, is slowed down. This is a terrible price to pay in an UDC.

5.- With deep structural problems, global financial policies are inappropriate. So the monetarist has two alternatives: he can either argue that structural problems are not important, or that they can be cured rapidly. As we saw in the previous chapter it is difficult to argue that structural problems are negligible. Certainly reforms in the different structural bottlenecks would make the economy more flexible to price changes. But these are fundamental economic changes, outside the scope of monetary policy. Only in a quite different system would the price mechanism exert an efficient allocation of resources. Monetarists somehow do not stress the classical conditions necessary for the effectiveness of monetary policy.

Thus, if monetarist acuse structuralists of regarding inflation as a 'growth policy', they are mistaken. But two gross questions remain to be answered. First, the idea that those policies conducive to growth are not necessarily those that bring price stability, and vice-versa. Something that again brings up the question of the inevitability of inflation. Second, it

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* (From previous page) STABILITY
Structural ~~equilibrium~~ is dynamic, that is, it must adapt itself to the new changes in demands of economic development. In the Latin-American countries this means a continous transformation of the structure of production and the composition of imports so that the rate of growth may exceed that of exports.

* (Above)
The second part of this sentence appears to be a too radical point of view.

is obvious that growth and inflation in practice are connected in a very variable and complex fashion; but one main stress a particular phenomenon: attempts to grow rapidly (to effect structural changes?) result in inflation. Moreover, remembering Dr. de Oliveira Campos, monetarists argue that inflation has been caused by the incompetence and imprudent actions of monetary authorities.

Resuming, let us state in our own words how we interpret the controversy, from the policy point of view. An effective development policy - should discard the extreme forms of the controversy: permissiveness towards an inflationary process which would presumably accelerate or maintain the rate of growth; or an orthodox restrictive policy which would imply that by itself and with time it would create the most favourable conditions for creating savings and productive investment opportunities. It is, of course, malicious and superficial to think that monetarists would stop the growth of an economy to achieve an stability that makes life pleasant for foreign capital and trusts in the erratic behaviour of domestic capital. The same may be said about structuralism: it is unfair to think that it would indulge in the expansion of credit, budget deficits, and wage and profit increases without regard for the financial stability of a country. The problem is that, apart from what causes inflation, the well-intentioned policy measures taken by monetarist would err on the side of an unacceptable-economically and politically-deflation. While structuralist measures - which seek to create both growth and stability - would paradoxically err on the side of permissiveness towards inflation. The problematics of the controversy can thus be seen in terms of adequate policy measures. Can monetarism bring stability without halting growth? Can structuralism correct inflationary structural bottlenecks - and hence promote growth without incurring in further inflation?

It is the intention of this work, as it has been said, that monetarism and structuralism in Latin America differ basically - both in theory with respect to the causes of inflation (as it was seen in previous chapters) and in economic philosophy, and less so in policy thinking. The controversy involves a deep disagreement over the ability of the price mechanism to bring about a socially acceptable rate of growth, as well as a progressive distribution of income. Moreover, with respect to policy measures, it is dangerous to exaggerate similarities between monetarists and structuralists.* That is, the idea that monetarist policy could be a chapter within the structuralist reform.

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* (See footnote in the following page)

Lastly, structuralism should be interpreted from three angles: as a contribution to economic theory, something that has been dealt with; as a collection of policy measures that should be interpreted in terms of stabilisation; and, as a case study of Latin America.

According to what has already been said, this chapter will comprise two sections. The first one, Elicy Measures, shall describe in a straightforward way the structuralist policy objectives and economic tools, only with respect to the problem of inflation. The second one, The achievements and failures of stabilisation programmes, shall analyse how structuralists contemplate orthodox policies; and thus indirectly understand their position to inflation. The outline is as follows:

A) Policy Measures**

(a) Orthodox policies

(i) Monetary Policy (the supply of money)

(ii) Fiscal Policy (deficit financing)

(iii) Incomes policy (wage increases)

(iv) Exchange rate measures (devaluation)

(b) Domestic Structural Economic Policies

(i) Agricultural Policies

(ii) Industrialisation Policies

(iii) Redistribution of Income Policies

(c) Foreign Structural Economic Policies

(o) The core of the matter

(ii) Dr. Prebisch's Structural anti-cyclic policy

(iii) The promotion of Industrial Exports

(iv) A Latin-American Common Market

(v) The Role of Foreign Capital

(vi) Exchange-Rate Policy

B) The achievements and failures of stabilisation programmes

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* Because of structuralists violent dislike of stabilisation programmes; the serious doubts about the effectiveness of monetary policy in influencing in a viable manner demand, apart from cost-push considerations; and, the circumscribing of the scope of monetary policy, although recognising its role. Still, there may be major agreement in fiscal policy, less so in exchange rate measures, and obscure controversy in incomes policy and other direct controls.

** It ought to be clarified that the outline is a rudimentary classification system. Several of the sub-headings can be moved from one place to another. For instance, exchange policy could be included under foreign econ-

(continued in the following page)

(a) Structuralists versus the IMF
(b) The Argentinian Frondizi Plan (1959-1963) and Preliminars
(c) The Chilean Klein Saks Mission (1955-1958) and the Alessandri Plan (1959-60)
(d) The Peruvian IMF Plan (1958-1961)

Two words of warning ought to be given with respect to the above outline. First, serious doubts have been expressed about the Structuralist Reform. The policy proposals of the structuralists, writes professor Grunwald, are vague. The policy objectives are rather clear, but what is the concrete economic policy recommended by the structuralist school? For the process of economic development it has not yet been possible to specify a body of internally consistent mechanisms. They do not wish to discard monetary policy altogether (?), but they believe it must be subordinated to the objective of correcting the basic maladjustments. There is, however, no policy programme* (6). To some extent the doubt ought to be confirmed or rejected in function of what follows.

Second, the exposition will only pretend to be a very general outline of the structural policies aimed at growth and stability; of their stabilising or inflationary nature; and, of their relative consistency. Thus this chapter to a great extent, although not completely, is concerned with what policy measures ought to be, not what they really are. That there is a divergence between structuralist recommendations and actual policy making is obvious and reflected in the disequilibria these countries suffer. This, of course, raises the question of what has happened in Latin-American economic policy making. There is here, first, the need for case studies, and, second, the making of generalisations. If one were very pessimistic one would say that in the majority of cases economic policy, more than an effective influence on economic behaviour, has been at the mercy of economic forces, both structural and propagating. Unfortunately, as fascinating and challenging as this subject is, it lies outside the scope of this work for obvious reasons of space and time.

**(Continued...)

omic policies instead of under orthodox measures. Also, agricultural and industrial policies obviously include fiscal measures. Incomes policy is not considered an orthodox measure, while the redistribution of income - which presumably includes a wages policy, but also measures on the distribution of profits - is considered structural. One ought of course, to be careful here to work with different concepts, not merely to play with words.

A. Policy Measures

'The persistence of the basic structural problems confronting the Latin American countries, writes ECLA, maintains the objectives of development policy constant (7)'. Thus theere is a tendency to integrate separate development and stabilisation objectives in a general strategy whose primer aim is sustained growth and development, which harmonises such objectives within an overall policy. 'This endeavour, writes the same source, is apparent in the nature of the anti-inflationary policy pursued by some countries; but its clearest formal manifestation is to be found in the preparation of overall plans and in the steps taken to establish a planning system (8)'. What concerns us here - remembering Dr. Prebisch - is that, at least in theory, the priority of the growth objective has come before other objectives throughout 1946-1965.

Thus it may be generally argued that, with respect to the countries that concern this work, the policy tendency has been to fundamentally contemplate the imposition of structural economic policies. The majority of countries, however, have applied stabilisation programmes with an overall priority, for short periods, and with varying degrees of severity. They were regarded as emergency measures facing spiralling and acute inflation. Their results in the majority of cases have been ephemeral and inflation has re-emerged with renewed vigour in Argentina, Chile, Peru. On the other hand, the stabilisation measures Bolivia and Paraguay underwent in the late 1950's and early 1960's have been relatively successful. Uruguay and Brazil on the contrary, hardly had any policies that could be said to have a stabilisation priority, at least for more than a year. By 1965, however, Brazil was launching a strict freeze on wages and public expenditure which has somewhat reduced the rate of inflation, resulted in a negative rate of growth (1967), and caused a grave political situation (1968). The pattern is similar to that of Argentina from 1959 to 1963. Mexico is a tentative exception, where from structural-inflationary policies in the 1940's the movement was toward greated emphasis on stabilisation, especially by the mid-1960's. The price stabilisation movement has been largely successful, although it can be argued that it is a consequence of a somewhat continous application of structural policies, especially in the public sector. We shall come back to stabilisation programmes in the second part of this chapter. In the meantime, it is convenient to think that academically and politically wise, though the practice may differ considerably, the overall emphasis has been on finding structural policies and on the priority of structural objectives over stabilisation programmes, except for

short lapses.

Diagram I presents a rough set of theoretical objectives and corresponding policy measures.* The economic objectives for the semi-industrialised Latin-American countries are arranged more or less in order or priority. Policy measures are divided in structural policies and in orthodox policies. The Structuralist Reform, as we have seen, would claim to make the objectives compatible 'some time in the future'; when a certain combination of the policy measures was achieved. Let us then start with the orthodox economic policies.

(a) Orthodox policies

This sub-section ought to be considered as a continuation of the discussion on the monetarist causes of inflation: the sections on the supply of money, budget deficits, devaluation, wage inflation and on the objectives of economic stabilisation (see Part II Cahpter 2). Moreover, in principle, the study of the structural causes of inflation ought to have included a part on what structuralists call the secondary or propagating causes of inflation. However, to avoid more repetititon it is thought best to make any comment on these theoretical causes of inflation in the context of policy measures.

The propagating or non-structural causes of inflation are those that feed back and aggravate the inflationary spiral. They arise from the capacity of the various sectors to defend their real income through: (1) the monetary mechanism, (2) government and public deficit spending; (3) and automatic cost-of-living wage adjustment and mar-up pricing; (4) as well as the immediate consequences of recurrent devaluations. As it has been repeatedly said, structuralists are well aware of the inflationary force of these variables, although important qualifications are made. Here the one that concerns us is with respect to the effectiveness of orthodox policies in Latin America. Orthodox policies could be very well effective when dir ected at these propagating factors: the core of the measures aim at a reduction in demand. The problem in structural terms, however, is that inflation is not only caused by excess demand but by cost-push. Hence structuralists strive to cure the structural causes of inflation and to subject orthodox measures to this aim. This, of course, does not mean that they want to discard orthodox policies or stabilisation; but, it does mean that they want 'to submit them to their structural policies and objectives.'

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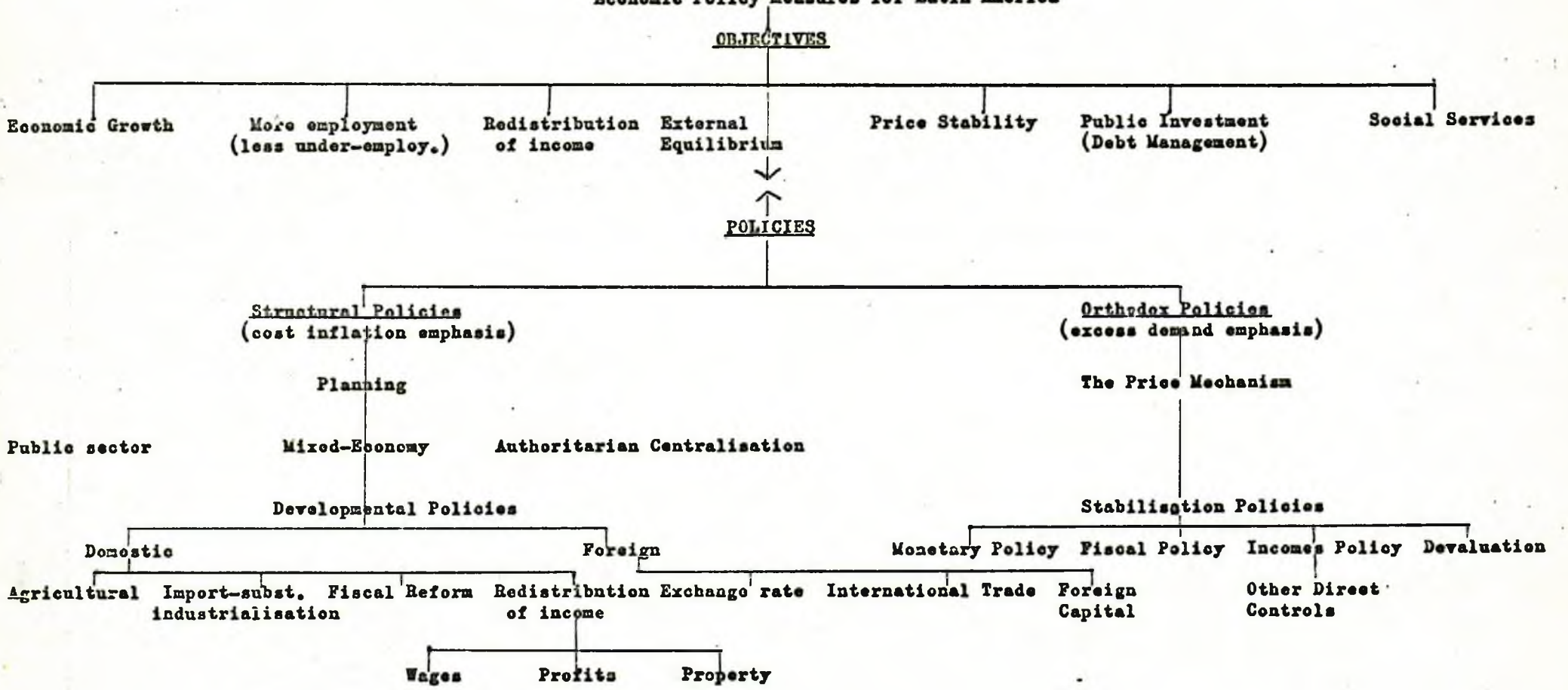
*For a comparison with an interpretation of the economic objectives and policy measures in advanced countries see the Diagram. In the background paper I wrote on theories of inflation and monetary policy (Pag. 93).

Orthodox policies can achieve external and internal equilibrium for a short time if demand is violently reduced and if the rate of growth is slowed down; moreover these measures can be taken ignoring the existence of cost inflation and structural bottlenecks. Structuralists reject violently measures taken in abstraction of the structuralist problems. Professor Grunwald puts the structuralist case in the following ideas (9). The result of orthodox policies is that the output of the most dynamic sectors of the economy - manufactures - is reduced to the level of backward sectors, the ones with the lowest elasticity of supply. If there is a change in the composition of demand prices go up in some sectors and down in others; if they do not, because of price rigidity, there will be inflation and unemployment. If the government grants wage adjustments then inflation will accelerate, but unemployment will be cut. Monetary policy, admit the structuralists, is working when the labour market is weak. But, if the credit control is maintained it aggravates the cost situation of the economy. At best, the control of the propagating factors will achieve some stability at the cost of growth by reducing activity to the common denominator of the lowest sector

(i) Monetary Policy and the Supply of Money

It should be established clearly that structuralists consider the expansion of the supply of money as a source of inflation. But it is an expansion of money that comes as a consequence of the structuralists characteristics of the economy and not merely as a consequence of arbitrary policy measures. The second thing one has to remember is that structuralists do not obviously want to do away with monetarypolicy: they recognise, as we shall see, the urgent need of a monetary policy compatible with the overall development policy. Professor Grunwald, discussing structuralism, writes: 'They (monetary and fiscal policies) should be geared to create the conditions to obtain the desired changes in the structure of production, government finance and volume and direction of investment. One of the basic assumptions in this respect is that qualitative credit controls are possible and must be introduced. Nevertheless, in this view the expansion of money must be kept constant, that is to say, in step with any increase in the cost of output. If money is kept completely passive, permanent inflation will resultsunless costs are being restrained. Credit controls in the private sector of the economy would have to be tightened whenever the government sector was forced to increase its borrowing for necessary purposes... In general, the structuralist position is that the investment rate can and must be increased. Orthodox anti-inflationary policy dictates that planned

DIAGRAM I


Economic Policy Measures for Latin America
OBJECTIVES
Economic Growth
More employment (less under-employ.)
Redistribution of income
External Equilibrium
Price Stability
Public Investment (Debt Management)
Social Services
POLICIES
Structural Policies (cost inflation emphasis)
Orthodox Policies (excess demand emphasis)
Planning
The Price Mechanism
Public sector
Mixed-Economy
Authoritarian Centralisation
Developmental Policies
Stabilisation Policies
Domestic
Foreign
Monetary Policy
Fiscal Policy
Incomes Policy
Devaluation
Agricultural
Import-subst. industrialisation
Fiscal Reform
Redistribution of income
Exchange rate
International Trade
Foreign Capital
Other Direct Controls
Wages
Profits
Property

investments should be reduced to equal planned savings. Development policy, however, should have the opposite objective, that is increasing the rate of savings (10)*'.

Since concern exists for the supply of money and for a circumscribed monetary policy, the next step is to state that structuralists, not altogether paradoxically, have serious complaints about monetary policy, and theory, as such:

1.- It can be a very inefficient policy tool - a concept that derives from theoretical monetary considerations and from the theoretical analysis of inflation as a consequence of both excess demand and cost push.

2.- It can be a dangerous policy tool with respect to price stability - a concept that derives from the experience of virulent credit squeezes not only on aggregate demand but on output and employment. 'If the contraction of the credit system, writes professor Uri, represents a tool to end an anarquical creation of means of payment, such a contraction is, in principle, the worse system to stop an inflationary process. It means the application of a rudimentary quantitative theory and of the use of a credit squeeze as the main tool in economic policy,... it runs the risk on the other hand, of increasing unemployment and misallocating investment into luxury producing industries (12)'**.

Thus this could be interpreted as the wish of structuralists to have 'a new' monetary policy - not to do away with it. The idea implies two alternative propositions+

1.- Start from scratch and construct a monetary theory and policy in response to the structural characteristics of Latin America and its development policy requirements; something favoured, as we shall see, by professor Seers.

2.- Adapt the 'natural' evolution of monetary thought to Latin American conditions in the manner of revising theoretical assumptions and economic objectives.

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*Increasing and controlling savings (and investment) could in principle be function of monetary and fiscal policies and a redistribution of income (See professor Kaldor, 11). As it will be seen, structuralists are pessimistic about the effects of monetary policy.

**Later on the same author writes: 'Let it be clear, though, that if excess demand were not controlled by the Central Bank liquidity would increase in a totally disproportionate way and according to the wishes of persons and enterprises. (Continues in the following page).

These considerations bring three sets of far-fetched questions. Firstly, how can monetary policy be shaped to function in the structural characteristics of Latin America? Secondly, what are the objections (its limitations its bluntness, its inefficiency) raised agains monetary policy? Thirdly, how can a 'new' monetary policy function efficiently when Latin America has an unavoidable growth priority? Let us work backwards.

Does the execution of a monetary policy with the objective of checking inflation involve the loss of the positive effects it may have and lead to a contraction of the economy? Is this the price that must be paid to check inflation and to achieve monetary stability? Dr. Prebisch (14) believes that there is no real reason why a stabilisation policy would necessarily lead to contraction, except in the extreme case when basic services are insufficient to maintain the level of economic activity. A contraction in the economy is a result of the type of anti-inflationary policy adopted rather than the unescapable result of checking the inflationary process. There are three main cases when such a policy may bring contraction:

(a) When there is a restriction of investment without simultaneous measures to offset their effects.

(b) When an attempt is made to neutralise the effects of the public deficit by a deflationary policy in the private sector.

(c) When the level of wages and salaries are stabilised at a level so low that effective demand cannot absorb the production.

Inflation in Latin America, continues the author, usually entails an inflationary expansion of credit brought on by a surplus of investment in relation to the actual resources available. This inflationary investment stimulates internal demand, the use of idel capacity, and encourages new investment. It leads to increased employment and overall income, although at some point brings external disequilibrium since higher income leads to more imports. Inflationary investment allows a level of investment higher than is justifies by exports.

**(Continued from previous page)
But it happens that in many cases the contraction of credit is only taken as a measure to substitute certain political decisions difficult to take, like fiscal measures. A wide experience, not only confined to UDC, reveals that stability may only be reached by these means at the expanse of growth and unemployment (13)'.

To check inflation it is essential to restrict the credit expansion behind it. But if this step is not accompanied by other measures of a compensatory nature, income will shrink. Contraction then may lead to a cut in imports and external equilibrium. This is the orthodox formula for monetary stability, that makes no secret of the fact that a temporary sacrifice must be made for the good of the economy. In development terms some other non-orthodox formula for monetary stabilisation is therefore urgently needed.* Inflation must be checked without the contraction of income.

Before going into the subject of a 'new monetary policy', any such subject ought to be founded on the evaluation of monetary policy as such. Today in advanced countries monetary policy has the short-run objective of maintaining a balance between aggregate demand and supply - the stability objective which involves domestic and external equilibrial It largely works on the assumption of excess demand and under the constraints of achieving full employment - although it is now considered that a '2.5 to 5%' unemployment would make the policy more flexible - and within the limitations imposed by the management of public debt. Moreover the short-run objective ought to be compatible with the long-run objective of increasing productivity - the growth objective. It is more-or-less agreed that both objectives may be incompatible in the short-run and subject to priorities, dictated both by political and economic considerations. Lastly, it is recognised that monetary policy should be complemented by fiscal measures (which can be an alternative), by an incomes policy, and by controls on the balance of payments.**

When evaluating the role and the scope of monetary policy in a semi-industrialised Latin-American economy, it seems convenient to revise one's assumptions. In general terms, this would involve the following (the overruling priority of growth):

1.- In Latin America one cannot speak of a full employment objective, because there is no full-employment position near the flexible 2.5 to 5%. The constraint of monetary policy, rather is the creation of more jobs (in proportion to the rate of growth of population and the pyramidal composition of age groups) and the avoidance of under-employment. This means that monetary policy is less flexible and compatible with other economic objectives than price stability.

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* Dr. Prebisch, thinks monetary policy should be complemented with foreign capital, fiscal messures, MST policies and the redistribution of income.

** See the background paper on Monetary Policy (pags. 88-94)

2.- The existence of large unemployment means that the concept of excess demand has to be revised. Strictly from the point of price instability and external disequilibrium one can stress the presence of excess demand, although cost-push should not be minimised. But when labour unemployment, excess capacity, and wastage of other factors of production appear together with inflation the validity of the concept of excess demand is reduced. Hence one has to think more in terms of creating effective demand rather than reducing it. This should not be taken to mean that monetary policy and price stability are impossible concepts in Latin America: it means that the structure of demand has to be revised and selective monetary tools thought of.

3.- If the constraints of debt management imposed on monetary policy are a major preoccupation in advanced countries, the problem appears to be greater in Latin America. That is, the possibilities of stopping the government from borrowing directly from the Central Bank and from increasing liquidity are smaller in Latin America. Many limitations should be considered: the relatively smaller size of the capital and money markets; their greater market imperfections; the erosion caused on the band and gilt-edge paper by decades of inflation; the lack of confidence and the difficulty of altering expectations; the great attractiveness of foreign exchange and securities, and so on.* Moreover, the possibility of reducing public investment and expanding revenues are less elastic when consideration is given to the priority of the reduction of structural bottlenecks which are regarded as the main source of disequilibria. The cost of public debt is bound to be more onerous, something which brings us to a last point.

4.- An increase in the rate of interest is supposed to attract both domestic capital that has been exported and foreign capital, as well as check excess demand. Latin-American countries cannot look toward this, when the rate of interest is very high (it can reach 30-40% and still be negative in real terms). Moreover, because of the impeffections in the financial market, the bank rate would have to be increased enormously to have any effect on short and long term paper. Even if it were possible, this would increase the already heavy burden of public debt to costs beyond reach. 'In Latin America, writes professor Uri, what matters is not the rate of interest but the rationing of credit; limiting bank credit and selecting its uses' (15).

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*See Chapter III, section d.

With this assumptions in mind, the next step is to evaluate the influence of monetary policy with respect to price stability.* Instability may be caused by either excess demand, cost inflation or a combination of both. Let us first assume excessdemand inflation.

Excess Demand

Monetary policy should affect investment, the propensities to consume and save, and thus the supply and demand of loanable funds to reduce excess demand. The tools of monetary policy are namely:

1.- Changes in the interest-rate (the interest-effect):
   a) Changes in the structure of the rate of interest in the free market.
   b) Changes in Bank Rate.
   c) The psychological effect and changes in expactations.

2.- Changes in the liquidity of the financial system (the liquidity-effect).
   a) The control of the supply of money
   b) The control of non-banking financial intermediaries.
   c) A viable assumption on the velocity of circulation.

Starting with the rate of interest - assuming perfect competition - there should be a very high interest-elasticity in the savings and investment function. Hence this would give great scope to influence demand.** With imperfect competition and state intervention it is a change in Bank Rate which would control excess demand.*** What are then the effects of Bank Rate and the long term rates on the components of aggregate demand?

1.- It is agreed that consumption is not affected to any considerable extent by changes in short term rate, except for hire-purchase loans which only have a once-and-for-all effect (i.e. the Radcliffe Report, 16).

2.- There is a reluctance to ascertain its alternate effects on savings; although, of course, it is granted that wide swings in the rate would have effect. (something which may lead more to instability than equilibrium) On balance authors like professors Kaldor and and Dow and Messrs. Little, Nield and Ross think that the effect is negligible (17). Hence, excess demand can be little affected.

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*The comments that followed are based on the background research mentioned. (pags. 94-139).

**Idem (pags. 97 to 111)

***Idem (pags. 32 to 42)

3.0 Any important influence of the rate should be an investment. However, again there is great scepticism since the General Theory.

a) It is believed that the incentive to invest depends on non-monetary factors; that is, the cost implied by the rate is almost negligible and thus risk minimised. Investment is likely to be determined by the internal finance of the enterprise (profits, depreciation, and future volume of sales considerations).

b) The conclusion is extended to fixed investment (See again Radcliffe and the authors mentioned). Changes on the rate may of course have effects on private construction and public services.

c) With respect to inventory investment, professor Kaldor does not believe that the interest rate is of primer importance. What is generally important, claims Mr. W. T. Newly, is the ability to pass on costs to higher prices (18).

d) Long-term rates of interest will only be affected with vident changes in short-rates so as to affect capital investment. On the other hand, small variations will have little effect, according to professor Kaldor, because long-term rates are very sluggish in relation to short-term rates.

e) However, it is argued that the interest-effect is much more psychological than real. That is, a small change in Bank Rate will make investment move in the desired direction, more than in the proportion to the change in the interest-rate. A climb in a Bank Rate is a sure indication of a contraction in credit. The author mentioned claims that, at least, in a setting of chronic inflation the psychological effect may be extremely unreliable or totally non-existent. In such a case an increase in interest rates brings by no means an increase in the demand for long-term fixed-interest securities![*]

4.- The conclusions reached were that widely fluctuating rates would affect capital movements and reduce demand; but, <u>paradoxically</u>, by introducing violent fluctuations in the economy; specifically, instability in the bond market,plus a high cost for public debt.

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[*] See pags. 104-107 in the paper mentioned.

So if consumer goods, other than some durables, are paid out of income and not financed by borrowing; if the effect on savings is similarly negligible; if nationalised investment is dubject to other factors; if total private investment (fixed and inventory) susceptible of interest-elasticity is a small % of total expenditure; if interest rates are only a small proportion of total business costs; and, if a large proportion of expenditure is financed out of the firms' profits and reserves, then it is probable that a good deal of expenditure is insulated from the interest-effect, and thus excess demand.*

The next step is to turn to the liquidity effect**, within the constraints imposed by the management of public debt and increasing employment. In other words how can the contraction of money and credit reduce excess demand?

1.- The supply of bank notes is controlled by the Central Bank and put into effect by the cash ratio.***

2.- The supply of money can, in principle, be controlled through open-market operations and the cash and liquidity ratios.****

3.- If public debt management makes these tools inefficient it is necessary to take direct measures in the discount market, revise the role of the central bank as lender of last resort, introduce special deposits and treasury deposit receipts.*****

Moreover capital issue controls can control the supply of quasi-monetary assets. Overall, taken both effects, a reduction of demand is certain.

4.- There are, however, two main limitations:

a) The role of non-banking financial intermediaties and the difficulty of controlling their impact on the expansion of the supply of money. Inasmuch as the Gurly and Shaw approach can be taken and such sources of credit are controlled, it is more certain that monetary policy can work in a selective manner in the banking system, avoiding discrimination (19). In Latin-America, where this sort of credit is speculative and of a large cost, its control is a sine qua non for the urgent need and applicability of selective credit controls.

b) The theoretical and practical limitations imposed by the velocity of circulation. There are two possible assumptions that have to be explored thoroughly:

(1) An increase in the supply of money is what increases V.- the extreme case would by hyper-inflation - in which case a credit contraction looks more viable.

(Footnotes in following page)

(2) A contraction in the supply of money is accompanied by an increase in V. The historical evidence here has been very inconclusive so that the approach may well be that of case studies.*

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5.- A general conclusion is that the liquidity effect, together with the Bank Rate, will have an effect, but that, both in theory and practice, assessing its results is very difficult. The role of monetary policy is self-evident: surely an economy requires it to manage its financial structure and, although unreliably, demand. Without it inflation would be worse. But, with respect to its scope and given general economic policy, not much reliance should be placed on it alone in the face of growing inflation. The supply of money, together with the rate of interest, have obviouslyto be administered through monetary instruments, but what cannot be expected for the time being is that aggregate demand will respond in a significant measure. That is, unless blunt shock treatment is used; something that in Latin America is incompatible with the growth priority and with the non-reappearence of inflation.

Cost inflation

Let us now assume that Latin-American inflation is caused solely by cost-push or structural bottlenecks. What would then be the effect of monetary policy?

1.- It is agreed, as it will be seen, that if this were the case monetary policy has little scope in the control of inflation. Still, for a period of time monetary stability can be maintained if there is a - violent economic contraction that affects employment, profits, wages and reduces cost pressure on production.

2.- Emphasis on cost inflation advocates running the economy near physical capacity, while increasing employment, in order to achieve a high productivity and a rapid growth. But such an emphasis relies not so much on monetary policy as in fiscal measures, an incomes policy and government controls to keep prices and costs in check. Thus, thinking of

(From previous page)

* Orthodox monetary theory, of course, does not support these conclusions, which for the purpose of this work illustrate structuralist thought.

** Both effects cannot be formally separated because the supply of money and the rate of interest are 'interdependent'. This is only a simplistic analytic device commonly used (See J. Dow pag. 105 and W.T. Newlyn, pag 98)

*** Idem (pags. 6-12)

**** Idem (pags 12-15 - - - ***** Idem (pag 113-118)

(On this page) * See the work mentioned (pags 123-4) and N. Kaldor op. cit.

structuralism, it would appear that when they are thinking of a 'new monetary policy' they mean more complementing of subjecting monetary policy to other policies.

3.- Still, according to professor Brown*, what could be the effects of monetary policy on rising costs.

a) With respect to import prices it is ineffective, unless one thinks of the control the United States and the Common Market have on some commodities and, perhaps, when a country is the sole or almost the sole producer of a certain product facing elastic demand.

b) With respect to wage increases there is an indirect connection: if monetary policy reduces activity this might decrease productivity and wages. Professor Brown says that for dealing with wage and salary inflation it is hoped that a more difect and better means of control (than monetary policy) may not prove unattainable. But, could monetary policy affect wage bargaining? This depends on the force of the supply of labour. The trade unions in concrete, and on the demand for labour. The action of the forformer in broad terms is a function of the cost of living index, the level of profits and activity, the level of ther wages, and the degree of employment. The latter is subject to business expectations, the degree of competition, the ability to pass on costs to prices, wage-drift situations, and the wage pressure exerted by trade unions. Would employers grant less wage increases if they are short of credit? In a situation of excess demand it is very unlikely, because as was said the cost of a higher interest rate may be small compared to the rate of profits. If they cannot borrow they might sell stocks and economise on capital formation rather than reduce wages, or alternatively, introduce labour saving investment. However, again, if monetary policy succeeds in reducing demand, the enterprise may be forced into creating unemployment and a change in expectations with respect to prices. There is no evidence, write professors Kaldor and Kohn, of how much unemployment would be necessary to achieve price stability, and what the implications of such a policy would be for growth.**

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*See the work mentioned (pags 130-3) (20).

**Idem (pags 132-5).

c) Profit margins on the other hand, expressed as a fraction of prime costs may be rather inflexible; so that variations in profit margins as a poportion of total costs are attained mostly through variations in the level of activity. Thus monetary restriction is more likely to reduce profits by reducing activity rather than by affecting costs (primary production is an exception inasmuch as it is sensitive to demand).

4.- Thus the emphasis on cost inflation usually leads to the 'adoption' of an incomes policy as a means of guaranteeing some price stability. Professor Kohn, says that with an incomes policy, monetary and fiscal policies would be more effective (21). The best solution, according to Lord Balogh, is a greater investment as a way to achieve price stability... a rate of growth of 4-6% can enable better agreement with trade unions about a policy of income distributioh plus its effectson effective demand (22).

Here, of course, there is a tendency to go into other policy measures without which monetary policy may be made more unreliable (we shall turn to these below). However, one conclusion should be clear: remembering that inflation in Latin America is very probably caused by a peculiar interaction of excess demand and cost-push - where structural bottlenecks should be emphasised - orthodox monetary policy as it stands appears to be an unreliable and dangerous measure to face the full force of inflation and the inescapable growth priority of the region. This is important because monetarists still maintain that an orthodox monetary policy is the cure for inflation.

Professor Seers writes that, after the Great Crash government was made responsible for avoiding large scale unemployment, something that changed economic policy (23). This implied a much more active fiscal and monetary policies than previously. Controversy naturally focused on the quantitative theory. The contemporary position* accepts some association between a change in the quantity of money and the price level; whatever increases the money supply (budget deficits or an extension of bank credit) may well raise demand too, directly through its effect on purchasing power or indirectly because of changes in asset structure. But the effect on prices depends also on the conditions of supply. Moreover, the veolcity of circulation is a focus of many influences, and lacks the stability one would need to predict the rate of inflation from changes in the supply of money.

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*See, again, the background paper on Contemporary Monetary Theory (pags 2-8)

Monetary fundamentalism has therefore fallen out of favour in academic circles (except perhaps for Chicago and the universities of the Soviet block).* It is felt to be misleadingly facile, and the emphasis is now primarily on income flows. However, the quantity theory remains favourite with some laymen, including bankers and politicians. Policies of monetary restraint were widely adopted in the late 1950's in the attempt to check prices (and, in the late 1960's again in an attempt to balance foreign accounts). But since that decade turned out to be one of slow growth, and prices continued to rise, disillusion with monetary policy spread. Among the criticisms was that it only cured inflation and payment deficits at the cost of unemployment and semi-stagnation. If there were upward pressures on costs, specially from trade unions and rigid profit margins. It was a blunt weapon which might not merely lower investment but also change its composition in ways unfavourable to growth.

Since all the modifications in the classical doctrine, especially in monetary policy, concludes the professor, have accepted in advanced countries it is surprising to see them reappearing in Latin America like a handed-down suit that no longer fits the original owner. The reasons for these modifications in advanced countries, obviously, suggest that even far-reaching qualifications are needed if one is considering applying this doctrine to the case of Latin America. The 'difference' in Latin America means that economic development has been and is more urgent.**

The above policies, moreover, says the same author in another place (24) were made for advanced countries and under certain assumptions. For instance, stimulating the economy by deficit finance rests on the assumption of elastic supply conditions throughout the economy, so that expenditure could rise without rising costs or imports. This is true at times of excess capacity and unemployment. Even if there was spare capcity in Latin America, there are limits to the expansion of output in some sectors without imports. This means inflation and/or a payments deficit. On the other hand, monetary policy may be successful as a regulator only if the following conditions apply:
an integrated economy with competition in the markets for factors of production and products; responsiveness in savings and investment to the rate of interest; full employment of labour and exports which can be promoted or discouraged by changes in domestic consumption. These assumptions are not applicable to Latin America.

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*By the mid 60's monetary policy has again become popular.

**Confidence in monetary policy declined in the early 1960's with the appearance of the Radcliffe Report and the Joint Committee Report. Their influence was however very short lived: first, there was the appearance of Non Unanimous and later the international monetary sitation enforced again restrictive policies. Whatever the result in advanced countries, the fact remains that theirs may not be the answer for Latin America.

America nor can they be easily developed as long as inflation prevails. This leaves one with the need of a 'new monetary policy' or one that is applicable to Latin America.

Looking for a 'new monetary theory and policy' in Latin America, as far as one knows is alltogether improbable. However, there seems to be more scope in adopting monetary principles to the structural conditions of Latin-American inflation. Still, perhaps there is reason to be more optimistic in terms of complementing monetary policy with other short-term policies, both orthodox and structural.

The general objective is to combine the control of the supply of money (and indeed the contraction of credit, if it were feasible) with an expansion of investment and a reasonable rate of growth.

Thinking only of excess demand, there might be ample justification for a reduction of demand through very selective credit controls. This means altering the structure of demand indirectly: excess demand in non-essential and luxury industries has to be reduced, even if profits are high; while effective demand has to be stimulated, through larger investment on foodstuffs and essential commodities, even if profits are low in a given moment. In order to combat inflation through a reduction of the demand for non-essential and increase the supply and demand of essentials so that wages are not forced to increase. Moreover, that would allow a greater flexibility in the structure of imports and the discouragement of certain imports. 'Those industries that produce essentials, writes Mr. Uri, have as a rule less marginal profits than those which produce non-essentials for high-income groups. A restriction of credit would affect more the former than the latter'. (25). Second, investment could be reduced in those export industries that are declining, while it should be expanded in thos industries that could turn exporters. Third, when there is a savings potential - now used in luxury consumption and the export of capital - future savings ought to be channeled to the banking system in such a way that real reserves create the possibility of a more flexible and selective monetary policy. Again, professor Uri says: 'Credit should be reserved according to a priority criteria to those essential activities whose rate of profit could be lower. There is no need to insist that, in the conditions of an UDC, this policy is neither a simple discipline to maintain nor a discrimination that can easily be applied (26)'.

For Dr. Prebisch inflation must be checked without a contraction of income. He thinks that monetary policy can be complemented by other policy measures in this aim:

1.- That is, an excess demand for imports must be eliminated and diverted to maintain the demand for the factors of production employed in investment, and in a non-inflationary way (27). (We shall turn to this below).

2.- 'Taxation combined with international loans are the most suitable means to achieve this purpose. A reducible margin is necessary to imports; one that does not affect neither economic activity nor mass consumption. In the absence of such a margin, international assistance alone could avert the damage. The fundamental error or orthodox monetary policy resides in exactly these two points: use has been had neither of taxation nor of timetly international assistance'.

3.- Investment need not be reduced but rather progressively financed from taxation and international resources as restrictions on inflationary credit are imposed. This, on the other hand, is not a reason for not rearranging the composition of investment in order that economic growth and external equilibrium are made compatible.

4.- In Latin America credit restrictions are usually applied without a savings effort having first been made. This is left until income has already fallen, bringing the capacity to save down with it. All this is the fault of traditional monetary policy. Credit is restricted without application of other development measures, in the hope that once inflation has been eliminated spontaneous forces in the economy will first bring recovery and later growth. In advanced countries the idea of spontaneous economic recovery is conceivable because the external trade trends are usually contrary to those of Latin America. The nature of their imports is such that demand for them tends to increase more slowly than income. Likewise in an advanced country a slight contraction in income is usually sufficient to enable exports to increase at the expense of internal consumption, while in Latin America this is not usually the case. With the growth of exports combined with a decline in imports, there might be a stimulus that leads to recovery.

Economic policy should thus be based on reducing the scope of monetary policy to the objectives of a development plan and to complementing such a policy with other measures and foreign assistance. What remains to be answered is the following. To what extent would the balance -of some contractions in non-essential investment and consumption and increases in savings and of some other expansions in investment and consumption- turn out to be stabilising or inflationary is, of course, the real question. For the time being, let us only say here that this depends either on the short run (the stability objective) or on the long-run criteria (the growth objective) adopted by economic policy. Today, it seems that advanced countries have inclined themselves for therformer. In Latin America structuralists, are inclined to the latter.

(ii) Fiscal policy (budget deficits and deficit financing)

This sub-section ought to be considered as a continuation of the monetarist argument on budget deficits (Part I, Chapter 2) and as a continuation of the structuralist thesis on infrastructure and public expenditure and income (Chapter 3, section d). We do not, however, propose to go here into the subject,; rather, only some comments shall be made on the structuralist thesis in terms of the role of fiscal policy in a structuralist reform for an inflationary economy. For a specific introduction into the subject of Latin American fiscal matters it is good to start with professor Kaldor's articles - specially his last summary one - as well as Mr. R. N. Sommerfeld's recent book (28) and the relevant bibliography already cited.

To round up the structuralist fiscal thesis it is worth to remember that structuralists are well-aware of the existence of 'a fiscal inflation' a propagating cause of inflation - which reflects itself an recurrent budget deficits and deficit financing. Dr. Prebisch writes: 'With an economic contraction fiscal resources will diminish, leading to a deficit or aggravating the already existing deficit. In addition it is not easy to eliminate a deficit, particularly when the contraction has reduced the fiscal resources (29)'. The author concludes that the fact will result in inflationary pressure of fiscal origin, which nonetheless should not be combated by depriving enterprises through monetary measures of resources

for their circulating capital.*

This granted, structuralists go on to explain how budget deficits arise abstracting from non-fiscal factors:

1.- Lagging public revenues.
2.- An inadequate tax structure, where the emphasis is on indirect taxes and on the dependence on external trade taxes.
3.- Necessary, although insufficient and sometimes wasteful, public expenditure.
4.- Indirectly and in the long run, a reduction of public investment.

Thus, as it has been said, for a structuralist the causes of inflationary budget deficits are in a general way:

1.- The tax structure.
2.- Inadequate budgetary expenditure.
3.- Reductions in public investment.
4.- Despite the fact that public savings may grow and finance investment, they are insufficient when compared to total expenditure. They have not resulted in budget surpluses.
5.- Public investment, and in some cases current expenditure, has had to be financed through the creation of liquidity in various fashions.

The result of these conditions is an inflationary setting. But, in terms of policy making, economic objectives and the priority of growth, structuralists emphasise the need for increasing in a non-inflationary way public investment - so as to reduce infrastructure bottlenecks and thus create the conditions for growth and price stability.** The fiscal tools he would recommend are hence obvious: an expansion or public revenues, as in advanced countries, and the expansion of public investment as an anti-inflationary measure. Would their fiscal policies then be inflationary? The answer is no in principle when they are based on:

1) raising public revenues
a) increasing public savings
3) expanding public investment

The next question to ask oneself is whether such an academical solution is feasible in Latin America. Let us answer this in terms of what may be called a structuralist fiscal reform:

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*'To avoid such a situation, writes Dr. Prebisch, it is essential that the private sector should continue to have credit, for if prices rise as a result of inflationary pressure of fiscal origin, profits will also rise and this enables the meeting of increased requirements for circulating capital....
(Continues in following page. Also, fottnote **)

a) A financial policy in Latin America ought be based on the very selective restriction of public expenditure and, in almost all instances, on a fiscal reform. ** 'The Latin-American countries, writes ECLA, still have a long way to go before bringing their fiscal and tax policies into line with an overall development policy which would mobilise their potential resources stimulate the expansion of public and private investment, and improve their living conditions' (31).

b) It is fundamental that contractions in public expenditure do not affect the public investment necessary to achieve a certain rate of growth and stability 'Neither fiscal nor budgetary policies, writes M. Uri, can be considered global policies. But it is obvious that inflated deficits should be evaded by increasing normal revenues above current expenditure, in such a way that public savings finance investment. What is important is the expansion of public investment, the distribution of expenditure, and the nature and composition of public revenues (32)'. For a structuralist it is obvious that the distribution of expenditure can establish a fundamental condition for growth, something that will expand fiscal revenues and contribute to price stability.

The subject has to be dealt in terms of an ideal fiscal system for an inflationary mixed-economy that has a growth priority, something which requires a special study. Still, it is worth emphasising that structuralists give a fundamental role to a fiscal reform that acts as a complement or alternative to monetary measures. In an inflationary setting - where cost push and demand pull interact - the need for a selective expansion requires direct controls on savings and investment and consumption which fall within the reach of fiscal and expenditure measures. But with respect to the rate of inflation, the question of 'how soon' can fiscal measures be implemented and 'how soon' they will produce results remains a delicate policy issue in Latin America. On a different level, fiscal policy measures may be an integral part of a structural policy. That is, structuralists envisage sifcal tools as part of a policy of a redistribution of income, together with an incomes policy.

(from previous page)The policy should be one of flexible taxes and duties Such taxes and duties would have the advantage of providing the state with additional resources to counteract inflation instead of increasing bank gains and profits of money-lenders.

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* One has the feeling that if a structuralist were pushed to extreme situations, he would recommend increases in public investment, even if it meant deficit financing and short-run inflationary repercussions. The point is that the policies will continue to be inflationary until a substantial infrastructure headway has been made and the fiscal feform is implemented and instituted

** This footnote on following page

In synthesis, one can only say here that structuralists believe that a fiscal reform or its implementation is fundamental, but that such a reform has to be part of an overall development policy. 'I wouldn't claim , says professor Kaldor, that fiscal reform would necessarily bring Latin-American inflations to an end; however, I don't think they can be brought to an end without it. Nor would I claim that monetary stability is the most important reason for fiscal reform. I think the most important reason for fiscal reform is to achieve a better and more rational use of resources of the countries of Latin America' (33). Fiscal measures, as monetary policy, are considered a complement to wider sectorial policies in agriculture, industry, and the external sector; as well as being directly connected with an incomes policy and the wider objective of a redistribution of income. Let us they say just a few words on incomes policy.

(iii) Incomes policy (wage and salary increases).

As it was seen (wage inflation, Chapter 2), monetarists are convinced that one of the major causes of Latin America's inflation is built on wage escalation. Structuralists, on the contrary, are very reluctant to give wage and salary increases, even as a propagating or secondary factor, importance as a real factor behind the inflation of the region. 'With very few exceptions, writes professor Seers, wage policy does not seem to have had in Latin America the significance attributed to it in the analysis of inflation in advanced countries. The reasons are not hard to find. Most of the population is employed in agriculture; trade unions are not very powerful; employment incomes are relatively small as a proportion of national income; and, there has been little promotion of wage increases' (34).*

But wage movements can play a significant role in the development of inflation.** There are certain groups of wage or salary earners highly organised, whose achievements in wage claims provide targets for the other weaker sections. And while wage-earners have at times been powerless to ahieve real increases they have been able to prevent a reduction in their

(From previous page..

** With respect to a fiscal reform, writes M. Uri, one should consider that a revision of existing laws is less necessary than the administrative implementation of the existing rules (30).

(This page)

* This of course is a generalisation. It is possible to find in some countries namely Argentina and Brazil - and for short periods the possibility of a higher rate of growth in wages than in prices. The question of the role of inflated profits on the other hand, remains rather unexplore.

** The wage inflation in Argentina during the 1940's is taken as an example of this, but the opposite may be argued for the 1950's when nominal wage (overlea

normal remunerations. Still, increases in wage rates which equal that of prices cannot be considered an autonomous source of inflation. Because of improvements in productivity, it permits the rise in prices to slow-up. If movements in prices and wages are not parallel this means that real wages fluctuate violently. An increase in real wages in a sector which paralleled the upward trend in productivity could be considered in a sense 'neutral'. But sharp unparallel fluctuations mean that the influence of wage increases - perhaps as a result of policy - are far from neutral. The problem, however, is to know what is happening to profits at the same time. 'In the wage-price spiral, writes Dr. Prebisch, the relationship between the real amount of wages and prices and entrepreneurs' profits is fluctuation continually. When wages initially increase, in general, the real level of wages will decrease again and profits rise' (36).

Still, if structuralists are reluctant to put a considerable weight of the blame of inflation on wages, this does not mean that they are not willing to contemplate the need for an incomes policy. We arrived at this conclusion after the discussion on the distribution of income as a structural source of inflation (see section e again). Moreover, the notes around structuralist thought on orthodox monetary and fiscal policies also led to the idea of the role of an incomes policy.

'In the post war, writes professor Uri, it has become evident that monetary and fiscal policies aimed at the sole objective of stability, requires an incomes policy that maintains remunerations in level with the value of resources'*. Statistical and political problems have prevented the application of an incomes policy as an obvious policy measure... Experience in Latin America has revealed that price instability, external disequilibrium and a fluctuating rate of growth are affected by much as fiscal policy and wages and profits as by the credit system.(37)' Moreover, Dr. Prebisch says that 'another measure essential to achieve monetary stability without detriment to economic activity is the stabilisation of wages. The rise in prices brought on by inflationary demand or by devaluation exceeding the increase in costs, rises the profits of firms, and it is possible to restore the previous level of real wages without a further rise in prices by the use of a policy of tighter credit provided that inflation has been attacked simultaneously on other fronts' (39).

** (From previous page: increases lagged behind increases in the cost of living index. (35)

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* (This page) For two works relevant to the subject see bibliography (38).

(iv) Exchange rate measures (devaluation).

Devaluation of the exchange rate may be regarded as a propagating cause of inflation; as an economic event imposed by domestic and external economic circumstances; and, as a policy tool. Monetarists and structuralists, as we have seen (see Chapter 2) agree that recurrent devaluations are behind every major or mild Latin-American inflation. However, structuralists ought to be distinguished in that they consider devaluation only one aspect of a major foreign exchange bottleneck; which derives both from the trade and capital movements with other countries.

The empirical and theoretical evidence behind the inflationary nature of devaluations in Latin America is vast. In the theoretical section we relied mainly on the work of professor Harberger, a mild monetarist (41). Besides the empirical evidence we noted in the relevant places of this study some specific studies in this subject are the following: for Chile again professor Harberger's other work (42) and the one by Mr. Pinto (42). For the inflationary nature of Mexico's 1954 devaluation the study of the United Nations Concejo Económico y Social (44); for Argentina the work of Messrs. Ferrer and Díaz Alejandro (45); for an introduction into Peruvian inflation the work of Miss R. Thorpe (46); and for Brazil, Colombia and Uruguay, among other works, the long term analysis of ECLA (47).

Having established the severe inflationary consequences of a devaluation in Latin America, the problems of the likelihood of massive devaluations and of the movements in the exchange rate as policy remain. Even the staunchest of structuralists, of course are aware that major structural reforms have started and will probably have to start again with devaluations. 'Devaluation,' writes Dr. Prebisch, is essential if costs have increased more than international prices' (48). Measures aimed at the conservation of foreign exchange, says professor Seers, caused explosive upward movements in prices when exchange rates were adjusted belatedly, after having been held unchanged and overvalued for years. In many casis the domestic value of some currencies became completely divorced from international price patterns, as exemplified by those current in the United States. In Argentina, for example, while the index of wholesale prices (1939=100) rose to 927 in 1953 the exchange rate increased in the same time only 85%; in Chile, Brazil, and Colombia similar discrepancies can be seen (49). The apparent contradictions between inflation and devaluation as a necessity and as a rational policy is well explained by M. Uri:

'A superficial analysis of the balance of payments in Latin America has revealed that indescriminate recourse to devaluation, as a means to restore external equilibrium, leads to loud failures. This is not to say that absurd rates of exchange have not been maintained and that urgent correction is not necessary. Except for these cases devaluation is only convenient when exports can be increased (that is, when exports can be diversified), when they do not compete directly with domestic consumption, and when they represent a large share of the world market. Nonetheless, the likely risk is that devaluation will have a very severe impact on the cost of living. Thus certain measures - like tariffs, subsidies, or a double exchange rate - have been recommended'(50). This point leads to the search for an ad hoc exchange rate policy for Latin America that may well involve an initial massive devaluation. On the other hand, if external disequilibrium were seen to be only temporary, for example as a consequence of a ciclical and violent contraction in the demand for exports, devaluation would then be inefficient and dangerous. The international monetary system would then function in such a way that foreign credits are made available until the temporal contraction passes and foreigh reserves are built up again in the up-swing. The structuralist argument, of course, is that the foreign exchange bottleneck in the majority of Latin-American cases is not temporary but chronic.*

Returning to the need of major devaluations, one could still argue that if devaluation was accompanied by corresponding monetary, fiscal, and wage policies much of its inflationary pressure could be evaded. Experience in Latin America has shown - following professor Harberger - that these corresponding measures would have to be short of draconian to have any effect on the inflationary nature of a devaluation.

Moreover, as we shall see, in practice a major stabilisation programme may soon fail, lead to further price increases, and to another devaluation; this establishing the recurrent devaluation pattern structuralists want to avoid. On any event such a devaluation accompanied by orthodox measures surely implies the short-term sacrifice of the growth objective, something unacceptable for structuralists.

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*If the balance of payments crisis in a country is not temporary, writes professor Seers, but chronic, there can be no question of correcting by monetary restriction or devaluation, indeed, if such measures lower investment, they will postpone the date when the economy will be viable in foreign trade. (The IMF has a problem beyond its means) (51) '.

But, despite all these rationalisations, a structuralist reform may still be faced with the inescapable need to devalue. In very crude terms, a structuralist has to face the fact that a devaluation may be a deflationary measure, both in terms of growth and employment unless it is accompanied by strict and selective controls on the foreign sector; an economic policy that places external equilibrium above all other objectives; one that does not insure price stability; and, one that distributes income regressively. With this in mind, the next step is to examine devaluation as a policy measure.

When exchange rate policy as such is undertaken, there is no longer agreement between structuralists and monetarists. There are three possible alternative policy measures in this respect:

a) a massive devaluation - which may be unavoidable, but following it;
b) an adjustable peg system (double or multiple exchange rate plus import taxes and controls), defended by some structuralists.
c) a free or fluctuating exchange rate, usually defended by monetarists. Dr. Prebisch writes: '(S)tructural equilibrium cannot be a consequence of successive devaluations; this is a fantastic theory, which purports to show that if the exchange rate is left to find its own level through the machinery of free interplay, the readjustments... will be achieved without the necessity of deliberate action' (52).

Leaving aside the selection of a free or a controlled exchange rate, the point is that such 'a choice' may only come once a major devaluation has been made. Let us then analyse devaluation under this assumption. It is convenient, however, to start first with a brief review of how a structuralist - in this case Mr. Ferrer, referring to Argentinian inflation (53).- explains the devaluation-inflation spiral. That is the vicious circle that starts with a massive devaluation, redistributes income, induces non-essential consumption, leads to further price increases, and culminates in another devaluation. What follows is derived from Argentinian experience but with modifications, may be applied to the rest of the inflationary countries.*

A) The question Mr. Ferrer asks himself is why since the liberalisation of the exchange rate system and the establishment of a 'free and fluctuating type of exchange rate in 1959 the peso has suffered successive and pronounced devaluations.

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*For further confirmation see Mr. J. Villanueva's article on the same source (54).

b) The price in pesos received by the export sector is conditioned by the prices in foreign exchange for the exported products and the exchange rate. The price in foreign currency depends on the conditions of the world market. Traditionally the domestic price of agricultural products has been conditioned by export prices (in pesos). In this way the exchange rate has had a decisive influence on the price of agricultural products. Because the prices of industry and services do not move automatically or in the same direction as agricultural prices, a devaluation changes the relative prices of farm products. Modification of relative prices implies a transfer of income to the agricultural sector. In 1959, as a consequence of devaluation, agricultural prices went up 137%, while industrial and service prices went up only 100 and 89%, respectively. Deflating these increases, farm products went up by 37%, industrial prices remained stable, and service prices went down 10%. Thus with devaluation agriculture benefits while the other sectors are hurt. With a difersified export structure, as in many advanced countries, the devaluation affects the economy as a whole.

c) The modification of the price structure produced by devaluation not only generates intersectorial transfers of income, it also changes the distribution of income between wages, interest, and profits in the following ways:

(1) In agriculture the remuneration of labour amounts to about 25% of net income and profits, interest, and rents to 75%. In industry and services the remuneration of labour is 55% and the rest 45%. If a modification in the price structure is brought about and the sectors of highest labour participation in income transfer income to the sector with less labour participation in income, there will necessarily diminish the share of labour in National Income.

(2) Between 1958 and 1960 the participation of labour in the net income of the agricultural sector dropped from 29 to 21%.

Because of these two factors the devaluation of the peso has strongly affected the participation of labour in the economy as a whole (it was 53% in 1958 and only 46% in 1959).

d) Devaluation has immediate repercussions on the general price level due to?

(1) The simulatanoeous increase of prices of commercialised agriculture output and the prices, in pesos, of exports.

(2) Cost increases in industries which utilise imported inputs or capital goods.

e) The interpal price increases of agricultural output and the raise in industrial prices cause a fall in real wages. There are thus wage demands. On the other hand the fall of the real income share of the labour sector causes an even greater fall in the demand for less essential consumer goods. The adjustment in highly concentrated industries may be brought about by a reduction of the quantity produced and not by a fall in prices. Given the large participation of high income sectors in the income of the agricultural sector, expenditure is deviated from industrial consumer goods to luxury consuption and investment and to hoarding of foreign exchange which put pressure on the balance of payments and on the free rates. In this way, devaluation may lower real wages, induce a fall in effective demand for wage goods and growing idel capacity, and produce a wave of secondary effects on the price level via the balance of payments. They produce furthermore, a growing pressure on the new value of the peso and a new devaluation and a second round of effects. The role of devaluation in Argentina, permits to explain how inflation continues despite a fall in wages and effective demand.

f) It is understood that devaluation, by raising prices and costs, increases the financial needs of the private sector and the total expenditure of the public sector. While renevue remains constant, due to the fall in economic activity, expanditure increases because of government employment, increases in wages, subsidised public utilities and so on, and budget defitits expand. The greater demand for meands of payment by the private sector, the growing budget deficit and the raises in wages then fully operate to propagate inflation, which, in this sense, has its origin on the continued devaluation of the peso. Stopping these outlets, credit, higher wages, and public expenditure, produced in Argentina a serious financial penury. There was a spiral of real deflation, while prices continued to climb.

g) The inflationary impulse which has its origin on devaluation is much stronger than that produced by public expenditure, the expansion of credit or huge wage increases. Between 1946 and 1949 there was an expansionary policy of public expenditure, of cheap money, and of general wage increases and the cost of living went up 98%, between 1958 and 1962, with a policy of credit rectriction, the reduction of

the budget deficit, and the dampening of workers' demand, the increase in the cost of living was 323%.

The lesson one derives from Argentina's experience is that massive and/or recurrent devaluations, together with orthodox policies - namely a deflationary policy in terms of economic activity,- does not guarantee in any sense price stability, especially after a short period has ealpsed.

In the analysis of devaluation it was seen that modern theory stresses the effects of devaluation on real income and expenditure (the absorption effect) and pessimism on the elasticities of supply and demand in the short-run. Devaluation by changing relative prices affects the patterns of production, changes the allocation of factors of production, and redistributes income between sectors and factors. Income flows from the domestic sector to the sector producing for the foreign market or into import-substitution industries. It also transfers income from the wage sector to the profit earners, assuming a wage lag and certain propensities to save and consumein both wage-earners and entrepreneurs. A devaluation will bring forth a fall in output and an improvement in the balance of payments, more through changes in expenditure than in income. The model is clearer if one assumes unchanged tariffs and controls and neutral monetary and fiscal policies, although not necessarily. The wage lag, on the other hand, is a sine qua non. Thus an improvement in the balance of trade will not be followed by an increase in output. Depending on the elasticities of exports and imports, output, of course, would tend to increase. But this simple assumption changes when the effects of devaluation on the distribution of income are considered. The induced redistribution of income will have aq uicker effect on expenditure (the absorption effect)than on the price effect (output). So that in the short-run, a devaluation, assuming a wage lag and reduction in the profits of the industries that produce for the domestic market, will reduce expenditure and contribute to the external equilibrium; while the changes in prices, that supposedly bring a change in allocation, would work slowly in the foreign sector industries, so that over-the-economy output falles.*

'While the domestic demand and supply of imports and exports will be very important in determining the impact of devaluation on the balance of payments, writes Mr. Díaz, the short-run redistribution effect is based essentially on the savings propensities of the different social classes.

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*For a discussion on the effects in a semi-industrialised economy of a 60% devaluation on the balance of payments, prices, output, and income distribution see the work of Mr. Díaz Alejandro (55).

So long as the non-wage earners have a larger marginal propensity to save than wage earners, the balance of payments will improve, but depending on the propensities of the different social groups to sepnd on imports, import-substitution and export themselves (56)'. In the long run a devaluation is expected to induce greater investment in industries producing import-substitutes and exports either at the expanse of investment in the 'purely' domestic industries or in the context of larger capital accumulation. A redistribution of income towards the non-wage sector arising from devaluation should induce greater investment in the first type of industries and will also tend to change the consumption and investment mix of national income in favour of the latter. But structuralists refuse to work on such an optimistic notion when they consider the propensity to consume of non-wage earners an-the decline in effective demand for essentials. Is it possible that as a consequence of the effects of devaluation an expansion of the domestic market can be expected? Within the structural characteristics of a semi-industrialised Latin-American country this is unlikely.

'The long run considerations raise the question of whether the investment incentives generated by a devaluation are so strong as to induce, even in the short-run, an increase in investment. If this were the case, the redistribution effect will not result in an improvement in the balance of payments in the short run, although it may still yield a fall in domestic output if the additional expenditure of non-wage earners has a low home-good component and a high import-component which wouldd eteriorate the balance of payments. For such a situation to happen it would be necessary for investment in MST and export industries to increase very rapidly after the devaluation. This, according to Mr. Dorrance, is unlikely because such investment only increases after an unavoidable time lag. Thus yielding an increase in hoarding in the short-run. (57) It may be noted that there is a conflict between the short and the long-run improvement in the balance of trade following a devaluation: for any given rate of increase in investment in MST the smaller the short-run improvement but the greater the long-run improvement in the balance of payments. So, at first, for an improvement in the balance of payments is necessary that devaluation decrease investment in both types of industries. In the long-run the favourable or negative effects of devaluation will depend on the export market, on the import content of MST, on the situation left on the domestic market,; that is, on the effective demand of the wage sector.

Short-run changes in non-wage income, concludes Mr. Díaz, have not been found, through devaluation, to have a significant impact on the level of private investment. Hence, the assumption that the redistribution effect will result in a net increase in hoarding or in non-essential consumption appears justified. Moreover, the forces that influence private investment in the short-run are other than devaluation: credit availability, the level of non-wage income, the value of investment projects underway, government policies to stimulate investment, changes in the level of protection and in the regulations of imports of capital goods, the relative prices of capital goods, and so on. But, the overall conclusion remains that in the short-run devaluation will induce a fall in domestic output.

Returning to Argentina, Mr. Díaz (58), observes that the country has a very high short-run marginal propensity to import, which is linked to the high import content of domestic investment and to the high marginal propensity to import of the non-wage earners. The nature of imports and the lack of resource mobility leads to a price elasticity in the demand for imports that is likely to be very low. The aggregate supply of exports is also suspected of having a low price elasticity, especially in the short-run. Despite the fact, exports may be increased even in the short-run via the income mechanism (that is, real domestic deflation), but with doubtful results if only the relative prices of exports are increased with respect to home goods. It has been found that the private savings and investment responses in Argentina are such that a devaluation-wage lag is likely to lead to a real income deflation, via price inflation and the redistribution effect. The real deflation will tend to reduce the domestic demand for imports and exports , although the fall will not be so large as it would have been if the demand of non-wage earners for imports had not been greater than that of wage earners. The existence and the duration of the wage lag is of critical importance; if the trade unions succeed in obtaining wage increases shortly after devaluation by the full extent of the price increase, neither income distribution nor domestic relative prices are likely to remain changed for a period sufficiently long to have a significant influence on the balance of payments; and the stage would be set for a new round of devaluation and inflation.

Structuralists reject this emphasis on the necessary sacrifice of the labour sector and the fact that its considered the main source of inflation after a devaluation. Such an analysis does not consider the structural cause of inflation nor does it consider, policy wise, the 'opposite' need of expanding effective demand and the size of the market as part of the solution of inflation and the behaviour of consumption in the non-wage sector. Price

elaxticities of exports and imports are the determinants in this case; the flexibility of the domestic productive resources will be reflected in the demand for imports and the supply of exports. When these elasticities are high the objectives of full employment and external equilibrium may be obtained in the long run. If the structure of production is immobile or frozen - the choice is very likely to be either deflation and unemployment and/or another balance of paymets disequilibrium. The role that the wage level plays on this is secondary, so that it appears unfounded to place the burden of policy on it.

Let us return to Mr. Diaz (59). Earlier discussion, he writes, has put emphasis on the key role of money wage behaviour as a determinant of success or failure of stabilisation policies.* Following a devaluation, large increases in wages would:

1.- Wipe out any chance of cutting the absorption of income by the wage sector.

2.- Lead to further domestic price increases (unless firms can be convinced to finance wages increases out of profits or by an unlikely short-run improvement in productivity.

Both of these results would reduce the effectiveness of devaluation in correcting the balance of trade.

1.- By failing to cut down on imports and on domestic consumption of exports.

2.- By increasing domestic costs and thus reducing profit margins and reducing the incentives of exports and import-substitution sectors.

Still, the emphasis on wage increase, seems artificial because of two opposite assumptions. If one is working on an inflationary setting, surely inflated profits could take-on some of the inflationary pressure and a high marginal propensity to consume of the non-wage sector should be reduced. Alternatively, if a deflationary policy has been introduced such a policy bears the responsibility for behaviour in exports and import-substitution and not only the wage sector.

The problem is that the reduction of the wage sector's income is presumably a means to an end. The main factor, if any, is a reallocation of resources if devaluation is to have a medium-term success and make both browth and external equilibrium feasible. But, the fact is that devaluation and wage-lag as such lead to failure in terms of these objectives:

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*Structuralists as we have seen, say that a certain stabilisation of wages play a role, but never the key part if growth and stability are to be achieved. Moreover, they maintain the need to expand the market and to redistribute income progressively.

In Argentina it was claimed that devaluation and a concentration of income would help in the reallocation of factors. It distributed income towards the agricultural export sector and industry towards entrepreneurs and away from labour. Structuralists insist that such policies are theoretically mistaken and, besides in practice they do not fulfull their externa-internal equilibria objectives. Bor two things: effective demand and the conditions in the external market are bound to alter the picture.

For example: the Frondizi government wanted to maintain a wage lag at all costs after the devaluation of 1958. The first step was to control trade union discontent. The army was often used to quell general and other strikes. Public authorities proclaimed that no bank credit would be allowed to finance wage increases. The impact of devaluation plus the state of siege conditions affected real industrial wages. In 1959 the fall in real wages was harsh on uban workers; the recovery of real wages during 1960 and 1961 left real wages in many sectors below the levels reached during 1958 (see Table in op. cit. pag. 155). Employment opportunities dwindled and as a result of these forces the share of gross wage income at factor cost fell down from 46% in 1958 to 40% in 1959, rising slowly to 43% in 1962. At the same time the rate of growth dropped and industry was stagnant. On the other hand, the object of the deflation-wage freeze was to transfer* income to the agricultural sector, something that did occur automatically. 'The redistribution of income in Argentina, writes Mr. Diaz in his conclusions, through devaluation and frozen wages should lead to a 'desired' investment process. The stabilisation plan (1958-1961) failed because of the low-re-investment coefficient of the rural sector'.(60). One could also argue, of course, that it failed because it put confidence on a devaluation-wage freeze, abstracting from the structural causes of inflation. The fact is that industries producing for the wage sector were ruined. After devaluation of the peso in 1958 to 82. 3 pesos per dollar, a free exchange rate was maintained until after the first half of 1959. After that the peso was realled pegged by the central bank for all practical purposes. The balance of payments - if not the balance of trade - had improved considerably. 'Since the main cause for the excess of supply of foreign exchange at the rate of 82 - 83 was the capital inflow,** the central banks' policy was wise, writes Mr. Diaz. The downward stickiness of domestic prices

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* 'It appears tha the whole income gain of the rural sector was obtained at the expense of urban workers, and to a lesser extent from an improvement in the external terms of trade.

** This was mostly formed by a huge foreign investment in petroleum and by balance of payments loans.

and costs (prices, in fact, had continued to increase despite the severe freeze) and the low-level of foreign exchange reserves. During 1959 also justifies the policy of keeping the peso from appreciating as a result of athe capital inflow' (61). Already by 1961 the central bank began to enter the market as a systematic seller of foreign exchange. The drain of reserves, despite the stabilisation measures, continued. In 1962 president Frondizi was over-thrown and the political and economical crisis was again exploicit. In 1962 the new administration freed the peso once more; there was a new devaluation of 60%; and, a new deflationary policy was adopted, but the capital flight continued. The political, financial and economic situations were chaotic.

While real output fell sharply in 1962 and 1963, leading to undmployment, the price level once again increased rapidly (the inflationary rate was slower in 1960 and 1961). The over-all wholesale price index rose by 44% while wholesale rural and import prices rose by 57%; wages rose only by 29% and the money supply increased a mere 8%. What were the causes of this? A highly restrictive monetary policy - with increased velocity of circulation? The situation seems to be a result of the above 1958-1961 devaluation-wage-freeze policies and of the political situation it created. During 1962 and 1963 both the public and the private sector defaulted in their financial obligations to each other; tax evasion soared up, while the public sector delayed its payments, i.e. to the civil service. The liquidity shortage resulted in an incredible growth of special private means of payment, including IOU's, cheques, with endless endorsements, and so on. Together with devaluation, foreign exchange reserves continued to fall this time, primarily as a result of foreign debt payments.

Let us resume these somewhat disjointed comments following again the conclusions of Mr. Díaz (62):

1.- Due to upward movement of the general price level and pegging of the exchange rate following major devaluations, after a short period of time most of the changes in relative prices have been wiped out. The conflict that arises with a devaluation between wage earners and non-wage earners and rural and urban producers, home consumption and exports are important in determining the level of expenditure relative to output and for both the short and long-runs. By introducing explicitly income redistribution into devaluation theory, it is possible to view devaluation as just another weapon in the struggle of different sectors in the economy for larger shares in a National income, that as a consequence of orthodox policies, may be stagnating.

2.- In the case of Argentina, the effects of a massive devaluation together with orthodox policies achieved external equilibrium - and not price stability - in 1959 at a great cost because real per capita GNP was only 2% the 1958 in 1961. Foreign capital and a reduction in real consumption of wage earners made this possible. The modest achievements in the balance of payments position in 1959 and in price stability in 1960, collapsed dramatically by 1962. The main reasons for the failure were the application of an ill-conceived stabilisation programme, the disregard for the structural causes of the inflationary process, the stagnation of rural output which should have benefited by the measures, and the high level of foreign indebtedness with an unfavourable repayment schedule. The fact that in 1963 per capita GNP was about 12% lower than in 1961 is attributed to a disastrous restrictive monetary policy, in particular, and to the political situation that emerged. The Frondizi government had put too much emphasis on the results of a deflation and redistribution effect, and not enough on encouraging the long-run effect: a reallocation of resources. Mr. Díaz analysis, nonetheless, seems too mild in its criticism. How could a stabilisation policy based on an ill-conceived monetary restriction, reduced public savings and investment, inelastic agricultural production, stagnating exports, flight of domestic capital, inadquate - onerous and wasted - foreign indebtedness, and so on, lead to more rational investment and consumption patterns? Authorities, writes the author, had an unwarranted faith in laissez-faire and its short-run effects. A more careful application of orthodox measures and the adoption of direct measures in agricultural and industrial investment above and beyond those signalled by the price mechanism, as well as of other non-price policies, would have resulted in a real transfer of resources towards bottlenecks and in a greater increase in productivity.

3.- The experience showed that the price mechanism did not serve as a guide to reallocate resources or to solve severe structural imbalances - made more difficult by a high propensity to import and stagnating exports - which make external equilibrium, growth and investment at the expanse of consumption very difficult.

4.- Returning to exchange policy, adopting a massive devaluation leaves policy with two further choices:

a) Monetarists advocate a free exchange rate that fluctuates freely pari passu with inflation. But a policy of more or less steady devaluation would much likely tend to accelerate inflation and depress the wage sector.

b) Dual or multiple exchange rate controls. In the light of past Latin-American experience, it seems doubtful that a policy of complete exchange control (usually overvalued rates) would induce the reallocation of resources to obtain external equilibrium in the context of rapid growth, even in coupled with policies to raise productivity in exports and MST industries. However, we shall return to the subject below.

5.- The key goal, for Mr. Díaz, should be to divorce exchange rates and other relative prices as much as possible from determining income distribution. Fiscal policy, and not price signals, should be used to remove unwanted changes in relative prices and income distribution, together with measures to increase productivity. Tax policy, credits, and subsidisation of strategic inputs should be used to discriminate against producers whose output and productivity remain stagnant, while helping dynamic producers. Rephrasing this in structuralist terminology it would mean subjecting orthodox policy measures, including devaluation, to the wider objectives and measures of a structural reform.

6.- In any case, the conclusion of the authro is that the issue of income distribution is at the root of the inflationary process; and only when an implicit agreement is reached among the government and the several social sectors will it be stopped.

7.- The above conclusions appear, however, tooeelectic when one has to face the need of the best possible exchange rate policy:

a) Mild orthodox policies, together with 'some' controls on the exchange rate, especially if taken in terms of long-run objectives, will induce again short-run inflation; which perhaps may be reduced in the medium-term if structural changes are made.

b) a free exchange rate with an accompaniyng severe economic squeeze may bring initial price and external stability, for a time and with a high cost in terms of the rate of growth*.

*'It is doubtful that a shock treatment, writes Mr. Diaz, could succeed when the soft treatment fails, while a fall in output is much more likely with the ../

Resuming, structuralists in their theoretical policy thinking obviously have to face, in the context of the actual inflationary Latin-American setting, the need of a severe devaluation in the short run and of the possibility of recurrent devaluation in the long-run. As it was said devaluation may be regarded as an 'inescapable need' imposed by domestic and external circumstances and as a policy tool. When conceiving a structural reform, that includes both structural and orthodox measures, devaluation is bound to be an integral part of such endeavours. Moreover, the inflationary nature of devaluations, particularly when they are likely to be massive is an overall structural reform is projected, is a fact. In this sense, the implementation of such a reform would be initially inflationary when it inescapably includes a major devaluation, but, for the matter, so would it be in the case of a monetarist stabilisation programme that gives secondary priority to the growth objective.* In a structuralist sense, even if other orthodox policies - monetary, fiscal, and incomes - were highly selective and refined** in such a way that price stability were made compatible with growth, the appearance of a devaluation would make the overall policy inflationary to some varying extent in the short-run. It is important to emphasise this obvious point with respect of economic objectives taken for the short-run or the long-run. The need to devaluate imposes clearly the overruling priority of external equilibrium over all other objectives. Moreover, if the reasoning is sound, it would appear that over the short-run inflationary Latin-American countries cannot achieve 'immediate price stability, even if a shock treatment that sacrifices investment is applied. The decision to devaluate in Latin America is an extremely delicate and paradoxical objective; but more so is the exchange rate policy adopted henceforth. The devaluation-inflation-devaluation vicious circle is only too evident. Thinking that devaluation can be avoided through foreign credits is wishful-thinking when the balance of payments deficit is chronic. Mounting foreign indebtedness may also lead to further devaluation. 'The IMF, according to the quotation from professor Seers, may have a problem beyond its means.

(from preceding page... former than with the latter'.

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*Devaluation has shown itself capable in Latin America of rising prices even if very restrictive orthodox measures are taken. Because ignoring the structural conditions of the economy, leads at some point to the failure of the stabilisation effort; being the cause the trends in consumption, in exports and imports, in agricultural and industrial output, in wages, in the expansion of credit or public expenditure, in the repayment of foreign debt, in the need for further devaluations, and so on.

**Something that is highly inlikely judging by degree of evolution of such policies in advanced countries that face less serious structural bottleneck

When one thinks that structuralists are not only concerned with orthodox measures - monetary, fiscal, wages and devaluation - the problem of achieving stability in the short-term becomes more complex. That is, a structuralist reform is primarily based on accelerating growth - and combating inflation - through agricultural, industrial, foreign sector, and progressive income redistribution measures. The question is: can these policies afford to be non-inflationary in the short run, or on the medium term? We shall now turn very superficially to the subject.

b) Domestic Structural Economic Policies

The moment orthodox or short-term policies are left aside, the policy implications of a structuralist reform become complex. Long-run structuralist policies imply in themselves a special Latin-American ideology which is not necessarily neither parlamentary in the western sense nor marxist in the Soviet sense. It involves different degrees of public interventionism which could go from absolute state control to mild interference. The closest one can get to such an ideology here is to say that it involves a 'special brand' of nationalism which, under precarious conditions, aims at 'continental nationalism' in the sense of Latin America as a whole. It is convenient to mention this so as to understand the profound 'sense of change' a structuralist reform explicitly or implicitly, seeks. Such a reform is based at least on three overall premises:

1.- A fundamental economic change in supply and demand conditions and in distribution of income
2.- Basic institutional and administrative changes.
3.- A necessary political and social setting.

Restricting oneself to the economic angle, the reform implies the creation of an overall development policy; the compatibility of economic measures and objectives; an over all socio-economic programme; a planning system - whether in terms of the sole public sector, in the context of a mixed economy, or as authoritarian planning control -, or, however one wants to call it. This a further premise the 'systematisation' of economic policy suited for the structural characteristics of Latin America.

The main objective of the structural reform or development policy is economic growth and less unemployment. Moreover, the long-run policy explicitly includes a redistribution of income that increases mass-consumption and the dispensation of public services, in a setting of fast demographic growth. Needless to say it works under the assumption or constraint of achieving a 'tolerable' external equilibrium. On a secondary level, the

theoretical reform includes the objective of price stability, working within the constraint (at least) of public debt management policy.

We are concerned here only with the compatibility of the structural* growth policies with price stability and its corresponding short-run orthodox or semi-orthodox measures. Aside from an overall developmental system, the structuralist policies have been simply divided into domestic policies -agricultural, industrial, incomes, and fiscal reform - and foreign policies -international trade, foreign capital, and exchange rate measures -.

It is obvious that these policies are conceived as the means to create greater elasticity in aggregate supply and changes in the composition of aggregate demand or greater mobility and increases in the factors of production. In structuralist terms it means reducing the agricultural bottleneck, the foreign exchange shortage, the contradictory industrialisation system, the infrastructure bottleneck, and the regressive distribution of income. It is believed that reducing these bottlenecks and thus changing the underdeveloped nature of aggregate supply and demand structures and the mobility of factors would conduce first to a higher rate of growth (assuming that the initial three premises are in operation). What is interesting here, is that such a fundamental change is also the major condition for price stability. In fact, such a growth policy, following the series of structuralist authors studied, is the road towards price stability and external equilibrium. Professor Seers puts it in the words that follow (63):

> 'The reduction of price distortion is a constructive feature of several stabilisation plans, but a basic and lasting cure can only come through the internal structural changes needed to enable growth to continue... a pre-condition of the structural change involved, as well of making the economy sufficiently flexible during the interval until it has been achieved, is increased factor mobility. This in turn implies the need for land reform, educational advance, and new fiscal systems, to break down the existing social structures, which are based on highly unequal distribution of income, restricted educational opportunity, and regressive tax systems. The essence of a fundamental stabilisation policy is a long-term development programme to achieve the structural changes which are needed, Any sort of

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* Structural in the sense defined on the introduction to Part II.

other stabilisation policy is a palliative. It is dangerous to insist, as the IMF does, on indiscriminate policies of financial restraint. The result is a serious check to growth and there is no reason to expect the resultant level and pattern of investment to be compatible with development needs'.

For the sake of argument it could be asked in general whether long-term structural policies, one by one or as whole, are compatible with price stability. In principle, as it has been seen through this exposition of structuralist thought, they are. However, there is scope for a wide range of academical and empirical doubts. One way of insisting on this question is to interpret the development policy versus price stability in terms of the short and long runs. Compatibility would then raise several possibilities:

1.- Immediate price stability with the emplementation of a structuralist reform something hardly possible.
2.- A reduction in the rate of inflation in the short-run.
3.- An increase in the rate of inflation in the short-run.
4.- Price stability in the long-run.
5.- The impossibility to determine future trends in prices.
6.- Permanent inflation with growth.

It is obvious that there one has no simple answer for these possibilities that arise from a theoretical structuralist reform. However, it is not unfounded to dlaim that the majority of structuralists would suscribe to numbers 2 and 4. The problem is, of course, that structuralists as far as one knows, have not yet provided a theoretical model that analyses a structural reform and its components in terms of its applicability and its immediate effects on the rate of inflation.

Insisting on the question with respect to empirical situations in Latin American countries creates an ever more complex problem. One could, of course, point out that no overall structuralist reform has ever been applied. Cuba is no exception if it is considered as an experiment on marxism and Soviet policies, which, nonetheless, presumably provides an alternative ato a structualist reform. Still, it can be argued that partial structural reforms have been applied in some of our countries and at different times. But, except for Mexico*, there is a shortage of inflationary economies that have become stable and have grown and where a structural reform can be identifided as the source.

*Bolivia too could be interpreted from the angel of the results of the 1952 Revolution.

It would seem that the problem of whether structural policies have been really applied remains a question? This is a necessary field of research for case studies, where one should first try to identify a structural policy (or an overall programme) and then its stabilising or inflationary consequences, say land reform in Chile or public investment in Brazil. In the meantime, one has to content oneself with making general comments on the subject.

(i) Agricultural policies**

In a traditional sense, structuralist policies usually start with an agricultural reform. 'The first objective (of a structuralist reform) writes professor Grunwald, isto eliminate the obstacles that limit the flexibility of production, principally towards agriculture' (64). That is, government investment in agricultural infrastructure. But, in an inflationary setting, if price controls contribute to an agricultural bottleneck, the improvement of prices in agriculture depends on improving the relative prices in the sector and a redistribution of income so that the purchasing power of the masses increases. The greatest obstacle, writes the author, that structuralists notice is the present land tenure system. Agrarian reform is then a policy, both towards the agricultural bottleneck and the redistribution of income. Taxation, moreover, is regarded as another instrument which should be ajusted to induce an increase in agricultural production.

To put it in very simple words, structuralist agricultural policy aims mainly at:

1.- Increasing productivity, in terms of,
2.- increasing the agricultural supply, or alternatively,
3.- finding the most economical way of importing foodstuffs - or raw materials, if it were the case - through higher exports and the least burdensome foreign loans.
4.- Redistributing agricultural income.
5.- Creating the most possible efficient agricultural infrastructure.
6.- A land reform, the key-stone, economically and socially, to the whole agricultural reform.

** This sub-section should be regarded as a continuation of section (a), The agricultural bottleneck, in Chapter III. There, with serious statistical limitations, it was determined that the inelasticity of agricultural production was an important cause of food and cost of living inflation, especially if relative comparisons are made between the inflationary countries.

In Western economic circles, outside of Latin America, land reform is usually regarded with suspicion or pessimism. In Latin America, on the contrary, it is not only academically accepted as 'the solution' to the agricultural bottleneck but it is explicitly accepted even by some of the most right-winged regimes. That is, land reform is politically acceptable; something that does not prevent governments from then following to store it away in a drawer. We are not concerned here why historically it has been accepted in political terms. In a contemporary sense - apart from Mexico, Bolivia and Cuba - this is mainly a consequence of the Conferencia de Punta del Este and the premises of the Alliance for Progress. 'The problem facing the Latin-American countries today, writes ECLA, is not whether they should or should not introduce land reform but in what form, with what scope, and with what financing.' For some, land feform means supervised credit, rural electrification, increased extension work and research, forced or induced migration, settlement of new land and labour and tenency legislation. 'But, writes ECLA, these are only supplementary measures, not land reform per se.' Land reform proper seeks a large-scale redistribution of land and therefore power for the rural sector, which can only be achieved by expropriating private farms for the benefit of the landless workers and minifundia farmers, who would be given land under a new system of land tenure, wither with privately owned farms, co-operatively owned or co-operatively worked forms or state farms (65).

But this is merely the statement of a theoretical need. On the other hand, ECLA writes: 'Thus far (1967) land reform activities have made only a very small dent in the land tenure system, and none of the programmes* have reached the proportion of a real land reform (66)**.'

Thus one is faced with the problem of applying a land reform. The economical need, abstracting from social or political decisions, can be summarised in the following statement of Dr. Sunkel and also in the words of a non Latin-American who in this case is unorthodox, Lord Balogh.

'The existence of an anti-economic structure of land ownership - minifundia and latifundia prevail - constitutex a strong obstacle to the introduction of modern technology and the full use of agricultural resources.

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* The statement is not meant to be applied to Mexico, Bolivia or Cuba, but it is applicable to the countries that concern this study.

** For an excellent discussion on the stagnation and contradiction in land reform measures see the same source (Chapter III).

It is therefore very difficult to raise yields and productivity of land and labour, and achieve the expansion of agricultural production necessary to achieve growth. In the cases of the countries exporting agricultural goods, this may lead to a fall in exports, therefore putting pressure on the balance of payments. In other countries, the increased demand may be supplied through imports, but this would reduce the possibility of importing equipment (67)'.

The reasons for the economical acceptance of land reform, one also given by Lord Balogh (68). The classical mechanism of readjustment, he says, is based on the existence of a large area of marginal choices. Marginal in this sense means divisible and small. Such marginal choices, even in the cases where the technical rigidities do not rule them out altogether, presupposes that industrial growth has been already achieved and that the increased mobility of labour and capital has led to an equalization of factor remuneration. As a picture of the conditions of UDC this could not be further from reality. Rural mobilisation is a condition for growth; while only a decisive increase in agricultural production and productivity can supply the food necessary to allow for industrialisation, without an intolerable burden on the balance of payments. 'The conventional working of the market mechanism is ofter impeded in considerable sections of the agricultural sector because of the inequality of the distribution of land. The motivation in both latifundia and minifundia differ considerably from what is assumed in the instantaneous profit maximisation model of perfect competition (which has become also highly inaccurate in fully industrialised areas dominated by oligopolies). There might be no incentive to maximise output in the short-run.

Apart from this, policies can be used to stop inflation in agricultural prices, writes professor Maynard (69). Prices in manufactures would have to be reduced to clear the market, but profitability and growth would suffer. Hence reducing the level of income is not a very good solution. Food prices to urban workers could be subsidised or controlled. Food could be imported but this places a strain on the balance of payments. Governments may therefore be forced to choose between, on the one hand, allowing the rate of agricultural growth determine the rate of growth or, on the other, breaking the restriction by permiting inflation. The usual remedy of reducing total consumption demand is not appropriate, since if it is carried enough to produce equilibrium in the food market, it will create a defficiency of demand for industrial consumer goods, thereby removing the industrial stimulus to growth. Inflation in UDC, concluding, results from a lack of balance of their economie

This lack of balance takes the form of low productivity in agriculture and in the heavy dependence on primary exports. The fact that the latter largely determines the rate of growth is a strong incentive for government to promote diversification: to encourage manufacturing relatively to agriculture, and to concentrate on domestic industries rather than on export ones. This may result in extreme inflation. The specialisation may eventually lead towards a concentration of manufacturing output, a large part of which is exported in exchange for foodstuffs.*

The study of land reform is outside the scope of this work.** Among the problems or questions it may present,*** however, something should be said about the financing of such a policy. That is, the problem of the stabilising or inflationary nature of an agricultural reform policy. It is fairly obvious that a successful agricultural policy in theory and over the long-run would bring price stability. But the immediate - or even, medium-term - consequence of financing and finding the resources to finance it creates serious questions; one of which is the possibility of its inflationary nature. That the financial load would be extreme is self-evident. But, it is difficult to estimate accurately the funds required to implement a mass modernisation and structural reform programme for the agricultural sector. For the moment, writes ECLA, no specific and accurate information is available concerning the resources actually invested in agriculture, which might serve as a basis for a projection. There is no complete list of projects to be implemented in the various countries, much less their cost (71).****

Financing agricultural policy - investment and urban and rural consumption - depends simply on:

1.- The availability of domestic resources

2.- Foreign loans and higher exports.

Neither with respect to private or public savings nor with the majority of primary product markets and foreign indebtedness is it possible to be op-

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*For a discussion on relative prices see the section on agricultural bottlenecks (Chapter III, part a).

**A relevant and interesting introduction into the subject - in the context of structuralism - may be gained from the works of the following authors: O. Delgado (a contemporary summary), R.P. Schoedel, Messrs. S.L. Barrochaugh and A. L. Domike, and J. Chonchol (70). The widest literature on the subject is the one concerned with the Mexican agrarian reform, bibliography suggestions, however, are better left in the hands of the specialist.

(for foortnotes *** and **** see the following page)

timistic. ECLA, nonetheless, contemplates the following possibilities. 'The bulk of additional capital will have to come from domestic sources. The redistribution of agricultural property and income brought about by taxation and other methods (land reform) would make it possible to earmark for investment resources which had hitherto been used for luxury consumption and sent out of the country. Total investment and credit resources will also have to be re-allocated to favour agriculture... It is not the purpose of this study to show a strategy for the financing of a volume of investment so much greater than in the past. This could be done as part of an overall economic development policy for the region. But, it can be predicted that, for investment purposes, a fuller utilisation of the work capacity of the un-employed or under-employed rural population might be to some extent relieving of the pressure on the financial resources available.

A substantial proportion of the new agricultural investment would have to be imported (tractors, all sorts of equipment, some inputs and capital goods for infrastructure projects. With respect to the possibility of foreign credits contributing to all this investment, ECLA puts in the following words: 'It is therefore imperative to make the granting of external loans contingent upon overall objectives and priorities from development plans; otherwise, external resources might be channeled into low priority projects, aggravating the external debt positions without promoting development' (73). One mentions this here, because it is worth stressing that usually structuralists conceive the financial problem and the role of foreign capital only in the context of a development policy.

(ii) Industrialisation policies

The inflationary impact of structural industrialisation policies on the price level has been studied - with severe empirical limitations - on the section on Industrialisation and the price level (Chapter 3 section c). That is, one can arrive at the conclusion that given the manner industrialisation policies have occurred in Latin America a variable push on

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(Footnotes from preceeding page)

*** Just to mention a few; private and public investment projects; the technological criteria, whether capital or labour intensive if alternatives are possible; employment policies, in terms of an excess supply of labour or under-employment; in terms of balance of payment decisions; in terms of the parallel MST process , the problem of sectorial balanced or un-balanced growth and relative prices.

**** A group of agencies - FAO, IDB, IBRD, and ECLA - is conducting research

(see next page.)

prices is to be expected. But, the statement says nothing about how their industrialisation process can be theoretically reformed so as to arrive at internal and external equilibria. Let us resume then the previous structuralist conclusions:

1.- Import substitution industrialisation (MST) is an important cause behind the inflationary process of some of the selected countries; whether as a policy induced cause or one imposed by external economic circumstances.

2.- MST industrialisation was adopted - imposed if one insists - because of external trends in commodities and capital movements and the priority of maintaining a certain level of income.

3.- Nonetheless, industrialisation in itself is regarded by structuralists as a primer objective of economic policy, productivity wise.

4.- Industrialisation has been capable of inflationary consequences and of disrupting the balance of payments equilibrium. Thus bringing in conflict the objectives of growth and employment with the objectives of overall equilibrium.

5.- As MST proceeds, it is possible that even the growth objective becomes less feasible with respect to the prevailing structural characteristics of the economy. That is because of its dependence on the capacity to import, the rigidity of the domextic economy, and the induced changes in the structure of imports.

6.- The factors that determine the domextic rigidity in the MST process and that result in inflation are:

   a) The effects of modern technology, the mobility and availability of factors of production, unemployment, the distribution of income, etc.

   b) These in turn reflect a reduced size in the domextic market, monopolistic tendencies, low profits, and so on.

7.- There is much need for research to determine how higher costs translate themselves into inflation, empirically speaking.

(Continued from previous page

**** with the object of determining as accurately as possible the resources actually required for agrarian purposes in several Latin-American countries. Their findings are not yet available, but for estimates for the whole of Latin America see the study quoted above and the work of Mr. T. F. Carroll (72).

8.- When this point of the discussion is reached - the inflationary cost of MST - structuralists readily admit that something has to be done about it. That is, for them MST is not to be discarded as such, policy induced or autonomous mistakes are recognised, and multiple propositions are made to construct a 'new' MST policy in the context of today's Latin-American structural and financial problematic.

9.- The pboblem, however, is not so simple. The following conclusion was reached: the strategic problem is how to make the transition from an MST model to a self-sustained growth model. In accomplishing the task of bridging the gap between the two models, the decisive variable is public investment. Moreover, when an external bottleneck exists, the continuity of the growth process depends fundamentally on an autonomous demand for capital goods; freeing foreign exchange and thus permitting the import of crucial raw materials and intermediate goods, as well as consumer goods and foodstuffs, for which domestic facilities are inadequate.

Structuralists, of course, have been aware for a long time of the limitations and the inflationary nature of the MST process as such. 'MST policy, writes Dr. Prebisch, has been applied in a discriminatory way, without a promoting a corresponding expansion in exports, and thus it has been carried further than it might have been. Only recently an attempt has been made to break the national markets by means of a gradual economic integration of Latin America... The cost of substitution has thus been exaggerated to the detriment of mass consumption, particularly when increases in productivity have been small in the rest of the economy' (agriculture, particularly) (74). 'MST industrialisation, writes Mr. Felix, has also proven inadequate to maintain self-sustaining growth... The analysis underlines - if such emphasis is still needed - the necessity to accelerate agricultural development by agricultural reforms and related measures of public investment in infrastructure. MST industrialisation, aside from its limitations, has created industrial skills and experience which should be used to supplement their primary exports. Indeed, the viability of their economies (semi-industrialised Latin-American economies) requires this, for the growth of their traditional exports is hardly likely alone to support the import needs. In brief, they must also turn to industrial exporting ' (75). Lord Balogh also agrees: the relative cost of industrial production prevented an orderlo process of unprotected MST. In periods of relative affluence, he goes on referring to the export sector, import controls are generally relaxed and investment in import substitution is not specially encouraged. In the absence of cons-

cious planning and the encouragement of MST during favourable times, the process is likely to place in periods of crisis, i.e. a failure of foreign supplies. Thus it will be difficult to prevent the emergence of large profit margins of newly created monopoly power. The loss in real income produced by the shift from imports to home production may be accompanied by a redistribution of income from the lower to the higher income groups, i.e. from real wages to profits. Thus the relative prices of manufactures express social opportunity costs as little as those of agriculture. They are expression of relative monopoly power and the bargaining power of trade unions. A downward rigidity is imparted to manufacturing prices. It is quite possible that a high share of investment will be frustrated by monopolistic influence keeping output low and prices high. Excess capacity would be created in this way. The inelasticity in the supply of manufactures is joined to that of agriculture and monopoly powers can transmit a cost-inflationary spiral (76).

One may conclude that 'contemporary structuralism' (within the structuralist reform) aims at implementing industrialisation policies which reduce the rigidity of the MST process and continuing with industrialisation, but as a response to the behaviour of the external sector A 'new' MST policy would be based, alternatively, on the following structuralist criteria:

1.- An anti-cyclical policy with respect to the trends in exports, imports, and foreign capital, in the words of Dr. Prebisch.
2.- What we have called foreign structural economic policies.

This only goes on to say that structuralist industrialisation policies are not conceived in abstraction of the foreign sector. In principle, of course, they would be divided into domestic industrialisation measures and 'external sector' industrialisation measures (we shall concentrate on these in the following section).

With respect to domestic industrialisation policies - those that could be taken more or less in abstraction of the balance of payments; and whether in the context of the public sector or the planning of a mixed economy - due to the magnitude of the subject and the required especialisation, they lie outside the scope of this work. For an introduction into the subject, see the bibliography (77). However, it is useful to give a guideline of the structuralist policy thought in the matters.

The overall industrialisation objectives are:

1.- The distribution of income.

2.- Increasing the size of the mass consumption market (in other words, a higher rate of growth).

From the domestic sector point of view these would involve the following policies:

1.- The selection of investment projects and priorities; that is, the distribution of investment between light, medium, and heavy industry.

2.- Fiscal measures:

a) Increased public revenues

b) Selective encouragement of industrial investment.

c) Industrial infrastructure expansion.

3.- An ad hoc monetary and incomes policy.

In other words the resulting structures of demand and supply, as well as the industrial habits, caused by MST stand in the way of restructuring the industrial sector. Policy measures should be aimed at this situation:

1.- Taxation should be used to alter the structure of consumer demand. It is not sufficient to raise more taxes to finance more public investment. The tax incidence must fall on consumer durables and luxury goods, whether imported or domestic, with the object of curtailing investment in such industries. This requires some combination of heavy indirect taxation on some goods and progressive taxation of personal income, but one that does not discourage the type of investment desired.

2.- A large share of investment should be directed to essential consumer goods, some capital and intermediate products, and to those industries with an export potential (one is dealing here already with the external sector). This implies cost and market studies to identify such industries and input-output studies, which well have to estimate the final demand for foreign exchange. Given such information credit and capital controls, tax concessions, wage and profit legislation will have to be used to help this investment.

3.- Foreign investment should be put under legislation. 'The authorities, writes Mr. Felix, must not be seduced by the appearance of direct exchange-savings or by the fact that such investment (foreign) may not compete with existing industries, overlooking possible indirect effects of such investment in increasing the demand for foreign exchange and stimulating low priority complementary investment' (78).

4.- Foreign technical assistance.

5.- From here structuralists go on to recommend the best policies for rationing the use of foreign exchange, managing the structure of imports, and encouraging exports; but there recommendations have been separated so as to be included in the structural foreign policy reform.

(iii) Redistribution of income policies

The theoretical concluision was reached that the regressive distribution of income ought to be avoided in the inflationary setting of a semi-industrialised Latin American country*. It was also agreed, of course, that 'any' distribution of income in Latin America, whether regressive or progressive, could be potentially inflationary; because of the agricultural bottleneck, the MST process, and the constant deficit pressure of the balance of payments. Still, structuralists recommend a policy of progessive income distribution as a means to growth and stability. The conlcusion is based on the discussion of the following thesis: a regressive distribution of income in an UDC has seen to be accompanied by a low propensity to save and high propensity to consume non-essentials or consumer-durable imports, besides having distorting effects on investment and employment. Moreover, the same theory recommends the need of a policy to distribute income progressively, since market forces in UDC may not correct automatically regressive trends.

However, when this point of the argument is reached, structuralists recognise that a progressive distribution of income may initially enhance inflation principally because of the supply bottlenecks in the agricultural, industrial, foreign, and public sectors. the fact, of course, is reflected on excess demand and inflated profits and wages. After some discussion, it was seen how structuralists, as monetarists, arrive at the need of creating an incomes policy that would make the main three economic objectives compatible -growth, stability, and a progessive distribution of income. Dr. Prebisch was quoted as saying: a measure essential to achieve monetary stability without detriment to economic activity is the stabilization of wages.

However, an incomes policy according to the structuralist reform has to be conceived as a 'structural' policy measure. Simplistically this only means that is should be an integral part of a developmental policy (the structuralist reform) and one that does not seek a wage freeze per se or a reduction of mass consumption. In specific terms then, what policy measures does a 'structural incomes policy' involve:

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* See chapter III, section e.

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*See chapter III, section e.

1.- Its main theoretical component is an agrarian reform which would distribute income and property. Conceived by itself, a land-reform, would have for multiple reasons, inflationary consequences.

2.- Legislation against industrial monopolistic tendencies, something which depends to a determinant extent on the behaviour of the external sector and public investment. The ideal objective would be, of course, the reduction of prices as productivity increased. Nonetheless, it is not convenient to be dogmatic on the subject: policy with some monopolies would be an economic solution, especially in the field of infrastructure. On the other hand, the mere legislation on monopolies may lead to oligopoly or monopsony.

3.- An incomes policy, as such

a) In Latin America it should be based on assumptions of the structure of employment and the large existence of unemployment and under-employement.

b) Careful assumptions about the introduction of technological changes and the measurement of sectorial and industrial productivity increases.

c) Wage reorganisation:

(1) Increased real wages in the labour sector.

(2) Minimum wage legislation (flexible).

(3) Induced consumption of essentials and the encouragement of labour sector savings.

(4) Independent trade unionism.

d) Profit-sector reorganisation:

(1) Labour's participation in utilities or subscription of shares and bonds.

(2) Direct (non-fiscal) encouragement of re-investment policies and public backing of certain investment projects.

(3) A compatible distribution of profits with trends in productivity, employment, wages, and demand.

(4) Discouragement of the use of profits for luxury consumption.

4.- Fiscal measures

a) Progressive income taxation and the taxation of wealth (a non-inflationary measure).

b) Public expenditure on the low income groups - services, subsidies, pensions, insurance, etc - (an inflationary measure).

The general structuralist conclusion seems to be that in theory at some point in time and given the incomes policy, growth and domestic stability would be compatible in a Latin-American country which aims both at increasing its per capita rate of growth and reducing its rate of inflation. Nonetheless, such compatibility and opposite trends in the variables are particularly dependent on what is happening and what is done in the external sector.

(c) Foreign structural economic policies.

The following comments should be considered a conclusion to the study of the foreign exchange bottleneck in section (b) chapter III. Let us then resume very briefly the structuralist argument:

1.- The foreign exchange bottleneck, as a source of inflation and slow growth or stagnation, may initially derive from the behaviour of exports and imports in our Latin-American countries.*

2.- Simplistically, this implies the existence of three main forces that disrupt the domestic and external sector equilibria:

a) The rate of growth of income proceeds at a faster rate than that of exports.

b) There are short and long run price fluctuations in primary product exports which introduce chronic instability into the economic system.

c) There is an induced behaviour in imports which further affects the balance of payments and the elasticity of supply of factors of production. Inflation ensues because, from the latter factor, chronic devaluations are introduced; and because, from the former factor, higher costs appear and the costly process of import substitution industrialisation is undertaken.

3.- From the angle of the induced behaviour of imports, in theory, two things could happen:

a) If the rate of import growth is reduced to the rate of growth of exports external equilibrium may be achieved, but income growth has to be reduced.

b) The real tendency, however, has been for imports to exceed exports and thus create a deficit in the balance of trade. Still, here two situations are possible:

(i) Imports are reduced although not as much as the behaviour of exportw would require.

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* See footnote in following page.

(ii) Imports keep increasing but not as much as if exports were growing.

4.- The argument can be made more realistic by introducing the concepts of the total capacity to import versus the total imports of goods and services.

5.- The point that structuralists make is that either way - (i) or (ii) - the export-import tendency results in a chronic balance deficit on current account - to begin with. This deficit may be taken as the reflection of the existence of an inflationary foreign exchange bottleneck. The two main features of the bottleneck are:

a) Lagging, stagnating or slowly growing capacity to import.

b) An MST industrialisation which with time creates a rigid import structure, in such a way that a further contraction or lag in imports endangers gravely the functioning of the domestic economy.

c) One could add the continous recourse of devaluation.

6.- The problem from the balance of payments angle - bridging the gap between the capacity to import and total imports of goods and services - has tended to be solved through the obtainment of balance of payments loans; short-run and long-run foreign credits, both public and private; net capital inflows resulting from private foreign investment; and, free aid.

7.- However, with time, the contribution of foreign capital may, paradoxically, further reduce the capacity to import when amortisation and interest payments are added to the total bill of imports of goods and services. The result has been that imports have to be reduced to bridge the 'new gap'.

8.- When this does not happen, there is a final deficit on capital account which reflects the final shortage of foreign exchange.

Assuming then the existence of a foreign exchange bottleneck in some of the Latin-American countries, structuralists are faced with the problem of proposing a structural external policy to reduce inflation and maintain the overall priority of growth. Superficially, this results intw two main questions.*

(from previous page * The initial analysis abstracted in a formal sense from the particular Latin American international trade controversy between Ricardian economies and Dr. Prebisch's Centre and Periphery theory.

* It also resolves itself, as we shall see, in specific foreign policies.

1.- What can be done with the balance of trade and services? For structuralists the solution lies in:

a) a 'new' MST policy, or , as Dr. Prebisch calls it, an anti-cyclical structural policy.

b) The encouragement of exports, which means industrial exports and is part of the MST process.

2.- What can be done with the balance on capital account?

a) A revision of the methods and sources of the foreign indebtedness process and aid.

b) The legislation of foreign investment.

Before going into the policy measures, it is convenient to stress the nature of the origin of the foreign exchange problem and the connection between the balance of payments and inflation. Insisting on the first problem, one can resume it following professor Seers (79).

The above author insists that the vicissitudes in the external markets for Latin America's commodities, as well as the population trends and the political developments, forced some of the countries in the region a task of adjustment, involving further industrialisation and the creation of a diversified and integrated economy. For the task they were - and are - unprepared - economically, politically, administratively, and so on. The inflations that developed are one symptom of the failure to carry out properly the needed adjustments; other symptoms are stagnation, chronic reliance on foreign aid, and increasingly frequent political upheavals.

But, the reason that interests us here is that the increase in the main Latin-American commodity exports has been slower, at least since 1950, than for other primary producing regions.* This is partly because the region's exports consist largely of foodstuffs, for which income-elasticity of demand is not high (coffee, sugar, bananas); but also partly because its exports are directed towards the United States and economic growth there has been slower than in western Europe; and partly because discrimination agains Latin-American products has increased with the development of the European Common Market, as well as the sterling and French brand area preferences and the increased protection of United States mineral producers

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*Latin America has had to face competition - in many cases unsuccessfully - from African countries.

(petroleum and non-ferrous metals). In addition, several Latin-American countrieshave now reached difficult stages of industrialisation, particularly the creation of heavy industries, without as yet getting much benefit in the form of saving imports of capital goods or exporting manufactures.

With respect to the second problemk inthose countries, as in the general case with our Latin-American countries, that have not accumulated foreign reserves, the theoretical analysis about balance of payments equilibrium has to give way to a very specific policy issue: one has to learn how a given country will find the necessary foreign exchange to pay for its commitments abroad, both the purchase of imports and the payment of credits. But, writes professor Uri, 'the link between inflation and the balance of payments is a complex relationship. In normal situations it is accompanied by a deficit. This relationship affects the policy measures taken to combat both problems. Orthodox fiscal and monetary policies claim to have both a deflationary effect and a balancing effect on the balance of payments. A reduction of aggregate demand should amount to a check in prices and a reduction in the deficit (80)'. However, assuming that the problem is only a question of demand - something that abstracts from supply inflation -, such measures have to be accompanied by a devaluation. The contraiction is evident between a general policy and a specific measure when devaluation leads to short-run external equilibrium but to further inflation - and a fall in output structuralists do not want to implement.

A 'policy alternative' - which has been frequently used - consists of solving the domestic problem sacrificing the external one:

This may easily lead to failure.

1.- First, because foreign exchange reserves - if they were there - we tend to disappear rapidly.

2.- Second, because import restrictions may accelerate the rate of inflation, credits are also spent rapidly, and postponement of foreign payments discourages new creditors.

These features may, of course, be common both to advanced countries and underdeveloped countries. Structuralists, however, are stressing that the relationship between inflation and the balance of payments requires in Latin America special theoretical considerations and possibly different policy measures, at least because of:

1) The demand and price trends in world markets for primary products.
2) The MST requirements and policy measures.
3) The behaviour of foreign investment and capital in Latin America.

In theory and practice it is possible to recommend to an advanced country that fluctuations in its international trade should be met with alternative movements in the volume of foreign reserves. But, as M. Uri says: 'it is useless to have the pretention that a sharp (and possibly a downward trend) drop in exports can be resolved with devaluation and deflationary measures' (81). Professor Seers also agrees. 'It is not wholly implausible to argue that industrial countries can enhance their balance of trade, at least in the short run, by financial policy if demand for motor cars falls at home, there will be more pressure to export them and the elasticity of foreign demand is doubtless fairly high. Similarly, many imports are nonessential, and can be reduced or eliminated easily and without great harm. Moreover, capital flows between industrial countries seem quite sensitive to changes in the short-term interest rates.. In the case of UDC like Latin America's, however, the reaction of foreign trade to domestic policy is, very much more sluggish. If home demand declines, the effect on exportable supplies is not very significant in the case of coffee, sugar, bananas, petroleum, or metals (though it may be more considerable for livestock products and cereals), because they do not absorb a large proportion of total local demand. Moreover, except for petroleum, the income elasticities of demand for primary products are not large. In most of the large countries of the region, the margin for comprising imports has become so smallthat mere financial devices are unlikely to affect foreign payments greatly. Where staple foods, equipment, spare parts, fuel and materials account for the great bulk of imports the demand for foreign exchange is not going to prove very responsive to changes in prices and the level of activity, unless of course financial pressure is carried to the point of causing a fall in investment. Yet if the payments crisis of a country is not <u>temporary</u> but a chronic one, in fact an inevitable feature.. there can be no question or righting it by mere monetary restriction or devaluation' (82).

The structuralist thesis, is of course, that the contraction in the external sector affects very delicatly the rate of growth of the economy.

The frequent policy response has been domestic anti-deflationary measures that lead to expansion of income the means of payment, and inflation. But, when our countries are vulnerable to an initial contraction in their income, which is out of their control, special policy measures should be devised. Specifically, the structuralist idea is that sustained growth would not be possible without a more than proportionate increase in imports.* 'One may disagree on the exact measurement on the divergence between the the growth of necessary imports and the growth in output and the possibilities of payment, but not on the direction of the phenomenon' (83). Thus it has been recognized that the problems of the balance of paymentsare closely linked with emplbyment conditions. Nonetheless, what has also been seen is that industrialisation as a response to external disequilibrium creates a host of problems of its own. The train of thought is open hence to unorthodox policy thinking with respect to the foreign exchange bottleneck.** We can only mention here the well known structuralist external policy suggestions.***

1.- A new MST policy, whether an anti-cyclical structural policy or a self-sustained growth model
2.- The promotion of industrial exports.
3.- A Latin-American common market, the development of ALALC and the new Southern common market.
4.- The financial compensation of primary producer countries for the deterioration of their terms of trade, Dr. Prebisch's Geneva proposition.
5.- The stabilisation of world markets for primary products, the commodity stabilisation agreements.
6.- The revision and development of GATT and the Kennedy ROund in terms of Latin America's foreign trade.
7.- A revision of Latin America's protectionist policies - tariffs, subsidies, and fiscal measures - in terms of the degree of protection or competition for commodities in the foreign markets.
8.- An ad hoc exchange rate policy.
9.- The revision of the necessary role of foreign credits and the problem of increasing indebtedness.

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* See the United Nations Conference on Commerce and Development, Geneva 1964.

** International free trade is the part of the classical doctrine widely unaccepted in Latin America. 'It arrises, writes professor Seers, from the simple fact that Latin America does not face free trade. The region's exporters face a world full of restrictions. All the industrial countries (as it was said) protect their own farmers from imports of livestock products, cereals, sugar. The United States applies quantitative restrictions

*** Some of these policies of course are not solely structuralist recommendatio

(footnote ** continues on next page)

Structuralists believe that a selection of these structural foreign policies, would, at some point in time, guarantee the compatibility of the ambitious objectives of growth, employment, price stability and external equilibrium. That is, breaking the foreign exchange bottleneck would guarantee the compatibility of growth and stability. Specifically, one should consider these measures as those most likely to be anti-inflationary. It is, of course, impossible here to go into a significant discussion of these policy measures; however important they are in themselves and mainly with respect of inflation. In the context of this work the question remains+ Is this the way out of inflation? Would not these policies be at least inflationary in the short-run? Hence, we shall discuss superficially some of these points.

(i) Dr. Prebisch's Structural Anti-cyclic Policy (85)

To understand how structuralists cope academically with the problem of a foreign exchange shortage resulting from the balance on current account, it is convenient to make explicit two important assumptions that underline their policy thinking:

a) Policy has to be divised in the setting of a de facto industrialisation process.
b) MST has turned out to be costly both in terms of higher prices (inflation)and foreign exhhange (external disequilibrium).

Dr. Prebisch's conclusion is that 'it is essential to adopt import substitution measures in advance without waiting for the external disequilibrium to appear... It is precisely in the ascending phase of the cycle when savings are mounting and imports of capital goods can be expanded, that emphasis should be had on MST policy'. On the contrary, in general MST is a policy of circumstance rather than a selective criterion. Usually, as a result of a contraction in the capacity to import, imports are reduced with a depressive effect on the economy and the creation a of a new external vulnerability. This is why it is important to device in advance an MST policy - in the context of a development policy - which endows

**(from previous page)
on imports of petroleum, lead, zinc, sugar and wool and uses subsidies and/or tariffx to help domestic producers of these and a number of other items for example, cotton and copper. It is intellectually possible (though I think mistaken) to argue that Latin America could benefit from a freely competitive international system. But there is no chance of such a system being created, and the circumstances to insist on multilateralism, free trade anc currency convertibility is to advocate that Latin America alone open its doors to the full force of international competition. Finally, the existence of chronic unemployment, continually swelled by the fllood of new recruits to the labour force, means that the classical doctrine of comparative advantage cannot be appliead without considerable modification(84).

the economy with the strongest structural resistence to external fluctuations. Dr. Prebisch's second conclusion is 'obviously the development of new exports', in addition to traditional lines and in the context of a Latin?American common market (we shall turn to this point in the following section). Let us then see how the author reaches this initial conclusion. He starts with ; posing two questions:

1.- Is it possible to pursue a policy of expansion without inflationary consequences?

2.- Can a fiscal deficit and monetary policy be used to counteract external contraction without inflation ensuing?

To divert excess demand for imports towards internal demand to compensate in a non-inflationary way for the shortage resulting from the fall in exports, is the problem. This involves serious difficulties, First, there must be a reducible margin of imports. These would be those that could be abolished without reducing employment nor affecting mass aonsumption. Suppose then these are goods for high-income groups. Part of the surplus demand for imports can be absorbed by import taxes. And these taxes must be high enough to divert the rest of the surplus demand towards the internal market. The remaining demand would be absorbed by taxes of an internal nature, in the case there is no idle capacity. On the other hand, if the reduction of the import of such goods has been successful and their nature is considered non-essential further taxation can reduce their domestic production. Either way, the surplus demand, to some extent would be collected by the government in the form of taxes. These resources enable the state to cover for previous investment done in an inflationary manner, In a nutshell, the operation consists essentially in shifting surplus demand for imports to internal demand for the factors occupied in investment.

The second problem may be that, in order to restore external equilibrium, the imports of the high-income groups are insufficient and that it is essential to resort to imports that are a part of mass consumption. If the above fiscal procedure is applied, however, there is danger of placing the burden on such consumption; and, if the burden is eschewed, inflationary pressure will emerge. There is thus no alternative but to obtain financial aid to cover investments to an extent equivalent to the inflationary pressure (with time, of course, there is the danger of reducing the total capacity to import). However, for a time, this is a way of maintaining a volume of investment which was previously made in an inflationary way, but covering it with savings provided by taxes and foreign loans. This is essential when imports vital to mass consumption or economic activity cannot be reduced.

Covering essential imports in this way, explains Dr. Prebisch, is a temporary device until structural transformations are introduced to restore external equilibrium . It is, therefore, essential to invest capital on local industries that will replace imports and in export activities, conceived in such a way that autonomous growth becomes a target. But, in so far as the absence of internal savings or to the extent or composition of the reducible margin of imports does not leave room for the import of capital goods, international financial assitance will be required. In practice such a policy runs into two difficulties:

a) a greater internal savings effort, through taxes or new loans, is required just when a drop in exports has already weakened the savings capacity.

b) International loans become a normal part of anti-cyclical policy. But such assistance can be justified as a means of supplementing the scant savings in our countries but not as a normal part of anti-cyclic policy to cover the imports required to maintain economic activity. The solution does not lie there, but in a policy of MST that anticipates the cyclic decline of exports so as to mitigate the consequences on the internal economy.

Let us then see what is the structural solution to the problem. The following is the problem: given the structural vulnerability, monetary stability is usually incompatible with the maintenance of economic activity when exports decline, stability leads to a contraction of activity and measures taken to remedy it lead to further inflation. An anti-cyclical policy that is not inflationary is possible, but it requires a greater savings effort, as well as foreign loans. The ideal solution would be to make the internal structure of the economy strong enough to divert the effects of the fluctuations outwards, so that the internal activities progress without interruptions. The problem lies in the fact that the import coefficient with respect to the state of exports is too high for income to continue to increase at the maximum level of employment, despite the drop in exports. It is therefore indispensable to reduce the coefficient by changing the composition of imports and to transform the structure of production to ensure that factors are employed to the maximum in internal activities when exports are at the nadir of the cycle. When exports increase again, the increase in income will put pressure on the market, but excess demand would be met by feasible higher imports.

What imports are likely to increase? Dr. Prebisch divides imports according to the possible scale of their cyclical fluctuations: (i) the raw materials and intermediate goods, essential to maintain economic activity at a high level of employment; (ii) consumer goods, mainly those to satisfy wage-earners; (iii) the consumer or capital goods requires to satisfy the demand of high-income groups, chiefly entrepreneurs.

If the level of employment is high when exports have reached their nadir there is no reason for imports of category (i) to increase when exports start to recuperate. Nor is there any reason why demand for imports for consumer goods in category (ii) should be cyclic, since, if economic activity were to continue developing at a steady pace, there would be no fluctuations in wages and fixed income, except in the export sector. The repercussions of external fluctuations would focus on consumer and capital goods of category (iii). As internal activity should not expand cyclically to maintain its normal rate of growth, the higher demand would be satisfied by an increase in imports, an increase which is cyclical. These imports would go up as the cycle rose and decline as it fell. From this point of view the import coefficient would be divided into two: the coefficient which corresponds to the imports not subject to cyclical fluctuations and the coefficient for imports of consumer and capital goods which can be made to fluctuate. Economic policy would affect differently the commodities that would still have to be imported and those that would be replaced by domestic products. But both coefficients, may have to decline to some extent while the growth of income exceeds sustainedly the rate implied and imposed by exports - one steadily, the other in accordance with the fluctuations of the cycle.

The problem remains that MST will eventually increase the second coefficient capable of fluctuating cyclically, and that then it becomes necessary to reduce the import coefficient essential for economic activity, or to incur in foreign loans, and through their repayment in a possible fall in the capacity to import which would again affect the essential imports.

Thus the core of the anti-cyclical policy may be resumed as follows:

1.- The lowering of the two import coefficients need not wait until an import surplus occurs.

2.- It must be a flexible policy planned in advanced and anticipating the requirements of domestic growth.

3.- MST should, in other words, start before the downward tendency in exports begins.

4.- Foreign loans are required as a compensatory policy in terms of the relative inadequacy of MST or an unusually steep drop in export.

In addition to this, Dr. Prebisch contributes the following four suggestions:

1.- A cyclic variation in certqin imports. The cyclic increase in demand will tend to push prices up. The intensity of this depdns, apart from the elasticity of existing capacity, on the margin of protection that exists for MST goods. If the margin is small - only affsetting differences in costs - the rise in prices would be checked by an increase in imports. A slight cut in domestic prices will, if prices remain steadly, divert the impact of a fall in demand towards imports rdher than domestic production. In the absence of such flexibility a variable duty is necessary; which could be lowered during the upward phase of the cycle in order to stimulate imports or raised during the downward swing in order to reduce them and safeguard domestic production.

2.- Promotion of cyclic imports of capital goods. When exports begin to decline, the correlation reduction in the duty and the consequent drop in the price of goods would stabilise effective demand for such goods without leading to a drop in imports or internal production. Applied in this way to goods with a high-income elasticity of demand, a flexible duty would enable capital to be expanded at the expense of the consumption in the high income groups. The government would use the revenue from such duties for the import of capital goods.*

3.0 Investment to absorb cyclic unemployment in export activities. Unemployment in export activities is not structural but cyclic and temporary. Hence it cannot be absorbed definitely, but only temporarily. Hence it has to be employed nonetheless in internal investment and this means that savings must be used if inflation is to be avoided. However, when these savings cannot be obtained at the expense of domestic consumption-because another form of insufficient demand would be created-the new investment must be covered at the expense of imports. In fact what is requires is a mass of savings which would grow steadily as the economy develops. These savings would be used to import capital goods when exports are increased and for internal

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*The State must also introduce structural reforms with respect to its expenditure. A clear distinction should be made between current administration expenses and investment. The latter must grow at the rate imposed by the economic and social policy and the other by imports of capital goods. Current administrative expenses should be payed with resources coming from domestic activity, whereas imports of capital goods should reflect the variable rate of exports.

investment when they fall, In the latter, the savings achieved at the expense of imports would be converted into consumption by those for whom the new investment has provided employment, filling the gap in demand causdd by falling employment in export activities.

4- Flexibility in the investment process. From the cyclic point of view investment consists of two parts: (1) one thatfluctuates and (2) another that grows steadily as the economy develops. The fluctuating part is composed by the imports of those capital goods in which the movement in exports is reflected. The second one is represented by the remaining imports of capital goods and by the total internal investments. If internal activity is to grow steadily, it may be assumed that the rate of savings is - maintained. To the stable internal savings, one must add the unstable external savings in the export sector. This, however, doew not solve the problem because internal investment is closely linked to capital goods' imports. This close link is a factor of internal instability. For this reason internal investment requires a measure of flexibility. The important element to introduce flexibility is 'the cycle in industrial construction' :- in the broadest sense of the word. When the cycle of industrial construction increases, other forms of construction should be curtailed. Through public works and low-cost housing schemes, the government is in the position to introduce this anti-cyclic element.

Let us then resume the nature of a structural anti-cyclic policy, which would make the three main policy objectives compatible:

1.- The internal economy to lose its vulnerability has to aquire a resistence necessary to ensure that export fluctuations are promptly reflected in thos imports whose movements do not affect internal activity.

2.- The induced fluctuations in over-all imports should be met by a flexible tax policy and foreign loans.

3.- The raise in the import of capital goods at the expense of consumer goods imports by means of a differentiated tax.

4.- Earmark the fluctuating part of the government's revenues - closely linked to foreign trade - forcapital goods imports.

5.- Absorb cyclical unemployment in export activities with the funds that were used during the upward phase of the cycle for capital good imports, other than those mentioned above.

6.- Change the composition of construction activities to compensate for the cyclical movements derived from capital goods imports.

7.- To sum up, demand has to be dealt in its rising phase by the public sale of bonds designed to absorb savings. By thus reducing demand,

and not using savings to import capital goods, the savings are available as monetary reserves to phase the declining phase. When it begins, the monetary authorities buy back these bonds and restore purchasing power without creating inflationary pressure because of the use of the previously accumulated reserves.

8- While these ideas are right from the anti-cyclic point of view, they leave aside the structural problems which are structural in nature.

The scope of such a policy, in the words of the author, is, in short, anti-inflationary policy calls for the combination of a series of measures if it is to be compatible with economic development. The first is to channel surplus import demand into domestic markets, and the second to replace inflationary investment by investment covered by savings before credit restrictions are applied, If the reduble margin of imports or if savings are inadequate, international fuhds are required. Devaluation is essential if internal costs have increased more than international prices. This will not suffice to arrest the price spiral if wages are not stabilised at a level which would absorb entrepreneurs inflation-swollen profits - nor would an attempt to tighten credit in order to stop wage increases provoked by rising costs, as both measures would have depressive effects' (86).

(ii) The promotion of industrial exports.

In general terms - mainly academical - structuralists obviously put much emphasis on the development of industrial exports in Latin America as part of a growth policy. This is obvious in structuralist thought because of the trends in their traditional world exports. the effect of the terms of trade on the capacity to import, the induced rigidity on the structure of their imports or the pressing need to expand them, an d so on. Despite the increasing theoretical knowledge, however, not much way has been made in this respect; foreign industrial trade has not even reached considerable volumes among Latin-American countries themselves. This, in fact, has been recognised for a long time. 'Obviously the development of new exports, in addition to traditional lines, writes Dr. Prebisch, would help to achieve this aim (the compatibility of growth and stability)... The need for MST and for consequent protection of substitution activities has been unavoidable. But there has been a failure to boost exports. There has been discrimination in favour of industrial substitution as against exports, mainly industrial exports. The ideal policy would have been to promote exports in order to place them on an equal footing with MST... there would be possibilities of using a smaller subsidy to develop new industrial exports, whereby a greater quantity of industrial goods could

be obtained through trade than those manufactured by MST. By subsidising substitution production rather than production intended for new exports, export opportunities have been lost which would have reduced the scope of MST 6rmade more rapid economic growth possible. This is admittedly a problem for which there is no simple practical solution but is unquestionably true that the lack of subsidy policy, especially for new exports and, even more, the negative subsidy that monetary overvaluation sometimes, constitutes, have caused the Latin-American countries to miss export opportunities to the detriment of their economic development' (87).

The question that has to be answered is why the selected semi-industrialised Latin-American economies have failed to become exporters of manufactures on a significant sale. A good introduction into the subject is that of the work of Mr. D. Felix (88). Let us here collect a few ideas around the question, although it is convenient to advance that structuralists, as far as one knows, policy-wise are rather vague on the subject. The policy conclusions at which they arrive are indeed very general:

1.- The possibility of expanding industrial exports would simply lie in the acceptance of advanced countries of a certain number of Latin-America's manufactures. This would presumably have to be worked out in the revision of GATT, the implementation of the Kennedy Road to Latin America's benefit, and more so with the revision of trade agreements between the United States, the European Common Market, EFTA, COMECON and the Latin-American countries.

2.- A significant expansion between inter-Latin-American trade. That is, the development of the ALALC towards a Latin-American common market.

3.- An agenda for empirical research, within the Treaty of Montevideo, to explore the growth and stabilisation potentials of such an industrial integration process.

Apart from the external demand for manufactures, as it has been said, the process of MST has determined to an important extent the failure of these countries to export industrial goods. The process of MST has tended to be one that advances from simple consumer goods to some capital goods, passing through complex consumer durables and some manufactured inputs.* The process, moreover, has significantly developed monopolistic tendencies within a small market or demand. Thus, even with modern plants and lower wages than in advanced countries, costs have been higher.** One reason for the frequent widening of the 'industrial spectrum' has been that, the more sluggish the capacity and the effort to import and the greater the

more sluggish the capacity to import and the greater the effort to save foreign exchange, the greater the inducement to substitute a wider variety of products. There has been a correlated impossibility to specialise - in the sense of achieving large outputs and a high productivity - along a few industrial lines. Policy has not in general terms helped either: it encourages the creation of new industries, rather than the modernisation of the concentration of efforts of inefficient ones. Emphasis on satisfying the demand of high-income groups has resulted in a large variety of durable-consumer goods industries. The over-all result has been that output curves have risen rapidly when exports were being replaced but have flattened when demand has stopped to increase as a consequence of the growth of domestic income, and its distribution. Profits may also follow a similar pattern.

Specifically the criticism that is being made against traditional MST is that it produces a precarious widening of the industrial base. In the words of Mr. Felix: '... it has meant a rapid movement towards the production of technologically sophisticated products in which complex economy of scale factors are especially critical determinants of production costs, even though the domestic market has often been inadequate to exploit such economies... Thus industries have moved rapidly from high profit and growth to precocious 'maturity', at which point they fall back to monopolistic quiescence with lower profit rates, a reduced level of investment, and aging plant and equipment (81)'.

The inability to develop export markets in our countries stems from the above factors. Thus export efficiency may be summarised in the following factors:

1.- The creation of external economies of scale (the effect of industries growth and productivity).
2.- The growth in productivity of competitors abroad.
3.- Wage and exchange rate trends.

The first factor should be determined to see if the establishment of new industries lowers unit costs in the existing industries. If this is so the widening of industry would be justified, even from the aspect of future exports. But, on the other hand, industries also compete for scarce resources: foreign exchange and public services, namely.

*(from previous page)
For an empirical discussion on the subject see Chapter 3, section c.
**The main reason for this according to structuralists, is the regressive distribution of income (Chapter 3, section 4).

Between specific groups of industries, complementary advantages may outweigh the competitive ones (the poles de croissance theory of Françoise Perroux) but this would still mean that the choice of industries to encourage can affect a country's ability to become an industrial exporter.

The effect of the other two factors is harder to visualise. The idea, however, is that the more MST advances and the more sophisticated manufactured Latin-America produces, the lesser the probability that these industries (with higher productivity nonetheless) will achieve international competitiveness. Because the more sophisticated an industry is the more it will need a large scale operation (reflected in low cost units with respect to the international market) which is not feasible in the reduced market of a Latin-American country. It then follows that the industries which are further from optimum operations have a lesser chance of reaching export efficiency. At the same time, new investment in these sophisticated industries prevents the concentration of efforts on more simple industries capable of reaching a relatively easier optimum (in output and productivity) and hence export possibilities. The moral is, of course, that semi-industrialised Latin-American countries should concentrate on reaching export efficiency on simple manufactures, say textiles. 'The general presumption, writes Mr. Felix, is that economies which hage pushed MST industrialisation... tend to box themselves in. As industrial growth slows down when imports become less compressible, the industrial sector (for the reasons suggested above) is unable to revive its momentum by exporting' (87).

The moral may nonetheless be criticised from several angles.

1.- The future of exports of simple manufactures still depends on advanced countries' purchases. That is, of the liberalisation of import restrictions against them. 'The Alliance for Progress', writes the same author, could well direct some of its efforts to promoting such liberalisation and to encouraging the industrial export potential of the relatively industrialised countries of Latin America. The benefit to their balance of payments and to their industrial confidence might lessen the danger of the Alliance becoming little more than a supplier of stabilisation credits to demoralised economies'.

2.- The world demand for simple manufactures (like textiles) has risen less rapidly than for sophisticated industries (like electronics). The only consolation is that demand for these less sophisticated products has expanded more rapidly than the one for primary products.

3.- The rapid rise in avanguard industries has been pulling up wages and labour costs for simple industries, but advanced countries have tended to protect and subsidise their production.

4.- The feedback on industrial skills and managerial experience is greater in avanguard industries than in the simple ones. Although one should not overlook the favourable feedback on cost and quality control and marketing skills which would derive from exporting simple manufactures.

5.- Mr. J. Méndez reminds one that 'notwithstanding greater comparative advantages, or similar disadvantages in traditional industries as compared with industries with greater capital intensity, itis very difficult for the former to compete with the latter in world markets. Abundant and cheap factors that enter into the production of simple manufactures do not compensate for both the high cost of scarce factors and the low productivity of the technical process. I agree with Felix that in order to avoid distortion of an excessive MST we should try to expand those simple industrial goods which could be exported. (But) In reality, there is no true choice between MST industries and the expansion of simple manufactures. In existing institutional arrangements there is avery limited possibility for exporting simple industrial goods' (83).

(iii) A Latin-American Common Market

The structuralist theoretical analysis of the external sector in the Latin-American countries usually reaches or supports the conclusion that 'the best solution' to the problem is a common market. The fact applies to the structuralist models of Dr. Prebisch, professor Seers, and ECLA, to the studies of close sympathisers to the structural economics of the region, like professors Kaldor and Uri and Lord Balogh and Mr. Felix; and, first of all of course, to Latin-American economists like Drs. Pinto and Sunkel in Chile, professor Ferrer in Argentina, Mrs. Navarrete and Mr. Urquidi in Mexico, and Dr. Furtado in Brazil, just to mention a few.

It is outside the scope of this work to go into the problematic solution of a common market as a means towards external equilibrium. An essential introduction into the subject, besides the Treaty of Montevideo, includes the pioneering work of Mr. Víctor Urquidi, Trayectoria del mercado común latinoamericano, as well as Mr. Dell's A Latin American Common market? and Mr. M. Wionczek's Integración de la América Latina (84).

The assumption is, of course, that a common market would allow for an expansion in intra-regional trade that would result in a more feasible external and internal equilibrium, together with the possibility of continuing with a wider industrialisation and agricultural processes which would allow for higher employment and a faster rate of growth. The idea has been in the minds of Latin-American economists since at least the 'mid 50's' and indeed took a policy and political turn in Montevideo when the ALALC was created in 1961.* The only point that one can make here is that judging by the timidity of the treaty, the regional political consensus such apolicy implies, and the small practical integration advances it is not possible to be optimistic about it as a practical solution to growth without instability, although theoretically it is a sound and constructive policy. In other words, a structural reform which establishes such a policy as a sine qua non for the compatibility of growth and stability would be post-poning the feasibility of the pressing need. This it appears more realistic to evaluate the bleak possibilities of an external balance in terms of the other foreign economic policies.**

(iv) The role of foreign capital

During the development of the core of structuralist thought along the 1950's - and up to the death of President Kennedy - the role of foreign exchange in reducing chronic balance of payments deficit and stimulating growth gained much importance. One could add many qualifications, but the role remained essential both in theory and policy. It was rightly thought that a change in savings patterns plus tax reforms and other structural policies could improve the investment coefficient only to a point. It was highly doubtful whether, even if incentives to save were efficient, an adequate rate of growth could be achieved in view of the

*Monetarists, and in general advanced countries, were very skeptical of the possibility. Numerous arguments are presented against such a common market. The most frequent one is that regional protection from foreign competition would benefit those Latin-American countries which have advanced further in MST industrialisation in detriment of the rest. This and other criticisms have to be answered in the context of the future of the Montevideo Treaty and the asimetric protection measures which are envisaged between the different countries.

**The latest development in this direction, however, has been besides the C.American common market, the treaty signed at Viña del Mar by Chile, ..7..

magnitude of unsatisfied investment requirements in our Latin-American countries. From this standpoint, international resources are necessary to supply the needs of question and moreover, to bring about the necessary reforms in the structure of production which would first secure a rapid increase in income and then enable a sustained increase in savings. Thus the rising of the savings coefficient is not regarded as an automatic process, but one that depends on foreign credits.

However, a word of warning was raised. 'If the savings coefficient were not to rise as per capita income increases, writes Dr. Prebisch, with the cooperation of international resources, the limit of absorption of such resources might easily be reached (as it did happen) without the creation of the capacity to maintain a high capital formation coefficient on the basis of the region's own resources. Once this aim has been fulfilled, further international contributions would be no longer indispensable' (85). There is enough evidence to suggest that in the majority of our countries this has not happened: economic policies have not succeeded in raising sufficiently the savings coefficient nor the rate of income growth so as to reduce the external disequilibrium.** The result has been a recurrent or rather permanent reliance on foreign loans that has either reached the limit of absorption of foreign loans or has made the policy of undebtedness a contradictory one, in terms of growth and external equilibrium. In the section on foreign exchange bottlenecks we arrived at the conclusion that the policy of implementing growth and the equilibrium of the external sector with foreign loans had beoome a very delicate and contradictory policy. Because of the effects of interest, amortisation, and the schedule on payments on the balance of payments as a whole and particularly on their contraction of the current capacity to import; this time because of movements on capital account. It may be said that, if during the 1950's the main bottleneck to growth and external equilibrium was the deficit on current account, during the 1960's, it is the balance on capital account which should worry structuralists. Thus the role of foreign credits has to be carefully revised. The cleares case is when a net outflow of capital occurs on account of private and public foreign loans that imports paradoxically, have to be reduced.

(from previous page)

*Peru, Ecuador, and Colombia, and Bolivia.

**For a discussion on the subject see Chapter 3, section b.

Structuralists also hoped that foreign loans, besides helping the Latin-American countries to raise their own savings coefficient, would be channeled into a second objective, since the problem is not only one of achieving an increase in savings: that is, allocating international resources to the import of capital goods. Such allocation on MST industries or export activities, besides other investments, would permit the creation of the necessary margin for the increase in savings to be switched to capital goods imports.

A second point relates to the international credit institutions stipulation that the proportion of investment which is effected within the country must be covered by domestic savings, international credits being channeled solely towared import of capital goods. The difficulties met by entrepreneurs or the government in complying with the requirements - because of the obvious shortage of savings and the stagnation of exports - may lead to an inflationary expansion of credit. 'What is at fault, comments Dr. Prebisch, is not only the lack of an ample capital market by means of which sectors with a deficit could avoid themselves of the surplus savings of other sectors, but the limitations of the savings coefficient itself' (86).

Still, the soluction to the policy problem structuralists offer is an overall development programme to determine investment requirements. It must determine the volume of investment required to attain a specific rate of growth, establish the potential extent of internal savings, and the amount of foreign savings indispensable. 'Once the amount of foreign loans has been established, it does not matter, continues the above author if in the case of certain investments these resources are used to cover some proportion of expenditure effected within the country, and in others only to defray the value of capital goods imports'. The essential points are:

1.- That investment as a whole can be affected in accordance with a programme, and the country undergoes a structural change that results in higher savings and relative external equilibrium with the aid of foreign capital.

2.- That all investment (to avoid inflation) be covered with savings, either internal or external, and that the amount of foreign loans, be related to the countries external payments capacity and its future evolution as a result of structural changes.

Yet again this is not what has happened in the majority of the inflationary Latin-American economies, since the external capacity of indebtedness has resulted in a contradictory reduction of imports. Thus it has been difficult to solve the deficit on current account - created by the import cost of MST, the trends in exports, or both - passing it on indefinitely to the capital account. This is not to say that the rate of foreign loans is ill-conceived, although a chronic deficit on current account should have been considered as the main determinants of the capacity to receive foreign loans. It should be taken to mean that foreign loans will be powerless to guarantee growth and stability if domestic structural changes do not occur and if a future for Latin-America's exports is not found.

There are, of course, many other aspects that should be considered. For example, it is obvious that movements of capital operate in both senses. One cannot expect foreign credits to do their role if domestic capital is leaving the country at the same time because of political uncertainty, devaluation or, even because, of indispensable fiscal reform. No false optimisms should be maintained either about exchange controls. In Latin America they have proven liable to a variety of evasions. The fact implies a reduction in potential savings and a failure of domestic policy.

The conversion of domestic currency and securities into foreign exchange, bank deposits, securities or other forms of transference should be limited by a rise in value of foreign exchange as demand increases and supply stagnates. But, this would have unacceptable unbalancing effects on domestic prices. Nonetheless, the role of advanced countries and of the international monetary system could do something about influencing the foreign exchange in Latin America, specially with speculative capital. For example, writes M. Uri, 'the more advanced countries - the group of ten - maintain agreements between central banks that up to a point neutralise speculative movements in capital. In fact, those central banks restore speculative capital acquired through erratic movements of capital. Is it not irritant to find that such agreements only exist among those rich countries which have a more stable and resourceful international financial situation?' (87). Without doubt - considerint the role of clue foreign exchange such as the dollar, sterling, the franc, and now much more the mark - it is fundamental for everyone to control speculative movements in these currencies. Advancec countries should extend to Latin America the

means and the techniques so that they may reduce and control the effects of the speculative flight of capital, both domestic and foreign. A simple solution would be an equivalent concesion of credits to cover not only deficits on current account but to create reserves. After all, if advanced countries are doing it among themselves, why should Latin America be excluded? That is, unless the international monetary system is definitely transformed into one where what some countries gain the other definitely lose (something outside the scope of this work).

With respect to foreign credits and as a conclusion, it is necessary for Latin-American countries to achieve 'a surplus' above the likely deficit on current account plus the repayment of interest and principal of accumulated debts, if their capacity to import is to be maintained. This implies, of course, the lagging of the external sector and the limitations of domestic policies. In practice the problem has been obscured by the short-run renovation of credits that secure the payment of interest and principal, and to a lesser extent the obtainment of long-run credits. However, when the rescheduling of foreign credits becomes chronic and imports fall more than the behaviour of exports would demand the problem is explicit. The problem may be taken to be beyond Latin America's monetary policy: it involves the problem of financing Latin America and creating the minimum balance of payments surplus tolerable for stability, when some European countries accumulate reserves at the expense of United States credits and do not grant significant long-run credits themselves.

Aside from this, structuralists contemplate the possibility of Latin-American policy controlling to a larger extent foreign loans - with respect to the schedule of repayment - and foreign investment legislation along the lines of Britain or Japan. It should be stressed that interest and pfofit remittances tend to be quite a strain on the balance of payments of the selected countries.

(iv) Exchange-rate policy.

Let us resume the exchange rate policy recommendations expressed by structuralists throughout the relevant parts of this work. As we have been seeing structuralist thought is against:*

1.- The chronic overvaluation of the exchange rate
2.- Multiple exchange rates
3.- Recurrent, although mild, devaluations (something which is regarded as the result of the failure to apply a structural reform).

On the other hand, they recognise:

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*There is agreement with monetarists along some of these lines.

1.- The need, in some cases, of an initial devaluation.
2.- A 'free exchange-rate' policy, controlled through other short-term policies.
3.- In some cases a double exchange-rate system.

'It is common knowledge, writes professor Uri, the proliferation of multiple exchange rates, both for imports and for exports, which encourages or discourages international trade. The disastrous consequences of the pro liferation of such rates is reflected in their arbitrary character; in their bewildering variations which impedes the working of any development plant; and, the complete loss of a sense of competition through the possibility of compensating at will any advantages or disadvantages in any activity (88)'. Moreover, he says, that devaluation cannot be avoided when absurd differences exist between an official rate and widely different rates applied in practice (there are cases when these differences amount to 1 to 10 as between official rates and quotations in the free of black markets). Dr. Prebisch also ssys: 'One such anti-inflation measure, perhaps the most disruptive, is monetary overvaluation. The desire to avoid increases in the cost of imports with its impact on mass consumption leads to the stabilisation of the exchange rate, while there is an inflationary rise in domestic prices or to establish rates favourable to certain imports. Naturally this policy cannot be maintained indefinitely. Latin-American experience shows that devaluation, and a consequent increase in prices, eventually appears (89).'

With respect to the future, professor Uri says that a dual exchange rate may have short-run advantages, when compared to devaluation, and long-run advantages, when compared with extremely protective measures and widely different exchange rates (that is, if initial massive devaluation can be avoided). Nonetheless, in another place, he arrives at the conclusion that 'theoretical experience has proven than for Latin America a free exchange market is the least bad of all possible situations. However, this means, that the concept of a free exchange rate has to be qualified with alternative measures. From another angle, Dr. Prebisch arrives at a similar conclu sion. 'The incentives given to exports through devaluation may bring about a deterioration in the terms of trade. Steps would be taken to restrict exports... The question is therefore one of economic policy and the advantages and disadvantages of such a method have been compared in practice with other measures, such as difect export subsidies, MST and protective tariffs' (90)

Hence the ad hoc exchange rate policy for a Latin-American country subject to a weak balance of payments and an MST process is a careful selection between a free rate complemented by export taxation, subsidies and tafiffs, to international trade or a dual exchange rate.*

Before closing this long section, which has tried to organise structuralist thought on policy making - the structural reform, as we have called it - and to explore, however superficially, its implications with respect to price stability, it is convenient to stress the final claim of structural reform. Developmental policies, those which integrate the objectives of growth and internal and external stability, are conceived inthe context of an overall plan. 'There is a tendency, writes ECLA, to integrate piecemeal developmental objectives and projects by fitting them into a general strategy whose primary aim is the acceleration of economic growth and social progress, and which will harmonise and co-ordinate such projects and objectives within the frame-work of an overall policy. The endeavour is apparent in the nature of the antiOinflationary policy (however academical) pursued by some countries; but its clearest formal manifestation is to be found in the preparation of overall plans and in the steps taken to establish a planning system (91)'. The statement should be taken more as a proposition or goal than as a de facto policy, whether in the context of the public sector alone or of the mixed economy (Cuba, of course, being an exception). In the course of the last few years, however, 18 Latin-American countries, which include our inflationary ones, have set-up planning offices and some have made specific plans, more in the nature of preparatory work rather than an actual policy tool. For an introduction into the workings of these planning agencies in the relevant countries see ECLA's Planning in Latin America (92). How much headway and what future do planning systems in Latin America have are the real questions. It seems that as far as the planning of the public sector (if such a policy may be called planning) much advance has been made in recent years in the integration of programming techniques. The academic interest on the plannification of the whole economy, however, fluctuates with political events. It was certainly high in the mid-60's after the loud failures of the orthodox stabilisation policies and with the predominance of civil governments in the inflationary countries. The political situation has changed today in Argentina, Brazil, Bolivia and Peru; and political strain is quite severe in Uruguay and Mexico.

* For the equivalent of a summary on the chapter see the concluding remarks.

PART III

Footnotes to Chapter I

(1) J. Grunwald, The structuralist school on price stabilisation and economic development, op. cit. (pag. 96).

(2) R. Prebisch, op. cit. (see pags. 1, 2, 23, 24 and 25).

(3) D. Seers, Inflation and growth, op. cit. (pag. 25).

(4) D. Felix, An alternative view of the monetarist-structuralist controversy, op. cit. (pag. 91).

(5) D. Seers, The heart of the controversy, op. cit. (pags. 99-101)

(6) J. Grunwald, op. cit. (pag. 117).

(7) ECLA, Some aspects of recent economic policy, Economic Survey of Latin America, UN, N.Y., 1967 (pag. 34).

(8) Idem, (pag. 35).

(9) J. Grunwald, op. cit.(pag. 116).

(10) Idem, (120-1).

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(13) Idem, (pag. 75).

(14) R. Prebisch, op. cit. (pags. 18 to 21).

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(32) P. Urin, op. cit. (pag. 78-9).

(33) N. Kaldor, op. cit. (pags. 485-6).

(34) D. Seers, Inflation and growth, op. cit. (pag. 48).

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B. The achievements and failures of stabilisation programmes.

At the beginning of the study on the structuralists' reform, It was said that a second indirect way -besides the previous discussion of outright policy measure - to understand strcutrral policy thinking was the criticism structuralists make against stabilisation programmes or orthodox policies. Indeed part of the structuralists' effort - besides the construction of a structural theory of inflation and growth and 'a structural reform - is directed to the analysis of the stabilisation policies that several Latin-American countries have undertaken under the auspices and insistence of the International Monetary Fund (IMF). As we shall see below, the influence of the IMF, of some orthodox theories developed in advanced countries and, of course, of Latin-American monetary authorities has been very great in the region, although greater in some countries than in others. 'The balance of payments, writes professor Seers, is in fact the main concern of the IMF, which has played a big part in inducing governments to accept stabilisation programmes; after a certain level is reached, aid is made conditional on the programmes being accepted, and public and private banks in the United States and Western Europe have often waited to see whether the IMF's conditions were accepted before they made loans themselves (1)*.

In fact structuralistseconomists, in Latin America and abroad, reacted violently against the orthodox recommendations - and their implementation - of the IMF. 'Considering the recent experience of stabilisation programmes in a number of countries, writes Dr. Sunkel, I cannot understand how can anybody recommend the medicine of stabilisation. Classic stabilisation policies are a failure... they can only succeed by paralising the economy. The Latin-American experience of the last decade (the 1950's) is very instructive in this respect' (2). From the United States, Mr. Felix, in one of his articles, wrote 'In the countries attempting the IMF cure, there has been despite supporting foreign loans, neither a mark resurgence of economic growth nor social pacification (3)'. In another place, the same author writes that 'it is by now evident that the stabilisation programmes have been largely unsuccessful, particularly in the larger Latin-American countries... events seem, then, to have given the debating cup to the structuralists (4)'. The object of this section

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*The author, moreover, quotes the New York Herald Tribune (editorial of March 2, 1962): 'President Frondizi was a victim of orthodox economic planning. His goals, charted by the IMF... were politically impopular and, as we now see, almost impossible'. This is somewhat of an oversimplification, says Seers, and therefore rather unfair to the IMF, but nevertheless it contains a grain of truth.

is thus to describe the stabilisation programmes and to see why it is that structuralists have reached these conclusions.

One refers specifically to the following IMF stabilisation policies:

1.- The so called Klein-Saks mission in Chile, which aimed at curing inflation during 1955-1958; and the second stabilisation intent of 1959-1962.

2.- The Frondizi Plan in Argentina during 1959-1961 (with emphasis on the antecedents of the so-called Prebisch Plan in 1955-1958).

3.- The Peruvian-IMF Plan during 1958-1960.

For such an objective it is necessary to go down to the case study leve something which will be attempted within the time and the simple means at ou disposal. Hence this chapter will be divided into an initial or general dis cussion on the subject and into the three case-studies taken separately.

A) Structuralists versus the IMF

In the context of this work, the history of stabilisation programmes in the semi-industrialised countries can be traced to 1955. By that year, take on average, the policy dilemma created by a foreign exchange crisis presente a complicated situation. As it has been said, the short run problem present by the foreign sector, for structuralists, increased the long-run rigidities the domestic sector, that had been attenuated in the post-war years thanks t an exceptional bonanza of world markets. Since imports and government expend ture were not reduced substantially, countries ran into balance of payments and budget deficits, thus adding fuel to the inflationary process. The adju ments in exchange rates, taxes, and prices were followed by wage adjustments and increases in the supply of money, given rise to an inflationary spiral. Thus, an account of the possible danger of hyperinflation and the difficulty to obtain foreign credits unless inflation was stopped, some countries follo stabilisation programmes.

The things to ask oneself with respect to the programmes and the contro versy are really three questions:

With respect to the first

A.- What did they consist of ?

B.- How were they implemented?

C.- What results did they have?

A) With respect to the first question they may be summarised very drastica ly in the following points:

1.- Their objective was to achieve short-run equilibrium in the external an internal sectors and create a stable setting for rapid growth in output This meant 'returning' to the workings of a free price system. One can put it in the somewhat allegoric terms of Mr. A. Alsogaray: "Create an

economic system which has no place for totalitarism nor for deformations of the system of free enterprise; eliminate the obstacles, interferences and rigidities that impede economic activity; private property output to be considered as the basic factor in the preservation of individual liberties and as the incentive, natural and licit, for human work; everything that individuals and private enterprise may do for the common good, ought to be left in their hands leaving the State to act supplementally; the fundamental due to guide economic activity and individual effort is the functioning of a system of free enterprise which oriented towards the objective of common welfare and through the competitive mechanism (5)'.*

2.- Their main policy tools were a reduction or suspension in monetary expansion, postponement of wage readjustments; the elimination of budgetary deficits by reducing expenditure and increasing fiscal revenue; increases in public utility services; devaluation; partiel liberation of price and import and export controls; IMF's loans and other foreign credits, and the inflow of private foreign capital, attracted by the stability and by the cheapness of investment.**

3.- These measures would produce a ddcline in real wages and price stability so that competition would be stimulated, raising efficiency and diminishing costs of private firms. There would then be growth on healthy basis.

4.- Stabilisation, grant monetarists, does not bring an immediate increase in output.*** It may lead to a decline in the demand for investment and consumption, if the corresponding monetary and fiscal measures are severe enough. There is a long lag between the production of capital and the actual consumption of capital goods. Moreover, inflationary investment, side-tracked to some industries, would also presumably be reduced. Thus for monetarists it takes 'some time' for alternative industrial investment to appear. and to be profitable. The lag in consumption and investment resources will result in a decline of the production of goods. Under their assumption of excess demand, the reduction of demand caused by stabilisation, and its replacement by other expenditures requires an adjustment in supply which will

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*For an academic discussion on this orthodox position see professor Seer's discussion on the decline of classical liberalism in advanced countries, let alone Latin America. (6).

The application of a stabilisation programme, not withstanding all its limitations in advanced countries and considering that monetarists based their programmes on the policies of such countries, meets in Latin America with the following limitations: existing unemployment: the contradictory need for recurrent devaluations and a chronic balance of payments deficit; a cost MST industrialisation process; the structure of the market (a weak demand for essentials and a corresponding weak supply, which includes food); and so on. These problems according to structuralists, cannot be generally changed by orthodox measures: points which have been discussed. (* on next page)

take some 'more time'(there would be dsinvestment by inventories, improtect and inefficient industries, construction, etc.). The adjustment problems o the creation of the conditions for the working of the price mechanism will depend on the degree of distortion caused by inflation, according to monetarists. When inflation has been rampant as with our countries, it is said that the problem of adjustment is serious. The depressive influences, they concede nonetheless, are temporary. They should 'evaporate' if the stabilis tion programmes are effective. It isusually hoped that after the period of adjustment, individual economic units may be expected to desire additions t their stock of physical and financial assets so that capital flight stops, foreign investment flows in, and demand increases.

B. With these assumptions, one can go into the second question - the natu of stabilisation programmes. Around the mid-1950's there was much discussi in Latin America whether these programmes should be gradual or violent-once and-for-all, 'shockers' they were called.* In fact, the initial ones tende to be mild.** However, soon monetarists tended to arrive at the conclusion that if stabilisation was to be effective it had to be violent. It was argued that, since the inflationary process was chronic and its rate high - some economists mentioned a 15% rate of inflation and others would not commit themselves to a figure -, the short-run objective had to guarantee a st bility that would allow the incorporation of the growth objective. Mr. Dor rance puts it in the following words. "Might not the rate of inflation be brought to an end slowly? The answer to this question is that a gradual approach is frought with more danger than sudden stabilisation. Among the real damages done by inflation is the distortion created in the economy. There is need to reorient the system. Drastic changes must be made in the community's expectations (this, of course, is the main argument). These changes are not likely to occur if the community believes that the government may be lukewarm in its attack on inflation (9)'. This type of opinion certainly carried weight and it was reflected on the Argentinian Frondizi Plan and on the stabilisation measures taken recently in Brazil and Uruguay In effect, the general recommendation amounted to the achievement of stability in the short-run, the raise in the rate of growth in the medium-run and the application of a continous and systematic orthodox policy.

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*For a criticism on gradual stabilisation programmes see M. Uri (8).

**Klein-Saks in Chile; the so-calld Prebisch Plan in Argentina; the short lived and unorthodox attempt of Brazil in 1954-5; and, in general, the Mexican short-run policy of the second half of the 50's (although, for ideological reasons, in Mexico the terms stabilisation was not adopted).

***(from previous page) For a discussion on the subject see Mr. G. Dorrance

However, before going ahead to the workings of these policies, it is convenient to explore their nature a bit more closely:

1.- Although the IMF's recommendations were primarily based on a credit contraction, the existence of supply ridigities was recognised. These, however, were considered a consequence rather than a cause of inflation (see Part II, Chapter 2). They were distortions created by a price expectations during the long inflation and supply inelasticities which were the result of distortions in the structure of relative prices due to control. That is, policy was geared towards the reduction of the distortions of inflation caused on savings and investment, expectations. The first type of inflation refers to inflated business inventories, fixed-asset investment, luxury construction, and so on. Serious empirical criticisms have been made against this simplistic approach on the theory of changing expectations. 'In fact, writes Mr. Felix, it is not at all easy to sort out behaviour due to inflationary expectations from that related to more enduring socioeconomic determinants (10)'. Mr. A. S. Shoalan has found that UDC, inflationary or not, put twice as large a percentage of their grows investment in inventories than advanced countries (1953-9). (11). Dr. Pinto advances the idea that luxury consumption and investment is more conspicous in stable Venezuela than in inflationary Chile of Argentina. In general, what structuralists say that it is very doubtful that the programmes changed expectations at all although a fall in growth brought a short-term change on investment considering the persistent patterns.

2.- The seonnd type of distortion refers to price controls reflected on an overalvalued exchange rate, underpriced public services, and underpriced agricultural prices. For monetarists, this means that an inadequate capacity to import, an infrastructure bottleneck, and a poor rate of agricultural production had to be met by some 'attainable' set of equilibrium prices' which would remove these bottlenecks. Thus prices por public services were allowed to increase: food prices went up (there was change in in the domestic terms of trade in favour of agriculture); and there was a devaluation. Liberalisation, of course, was not perfect; i.e. devaluation was accompanied by new import controls and some export taxes... a key elementin achieving such equilibrium prices was the further behaviour of export prices. Mr. Felix writes: "severe and unexpected declines in international prices for the major exports did complicate the effort of the Klein-Saks programme of Chile to attain an 'equilibrium' exchange rate. Copper prices fell from an average of 0.44 cents per lb. in 1955 to a low of 0.24 cents in 1958. But no such decline disturbed the other

two efforts. During the second Chilean effort copper prices rose moderate- to nearly 0.30 cents. Moreover, annual export volume of the foreign-owned mining sector in 1959-61 averaged 10% higher than in 1955-58. Similarly, Argentine export prices and terms of trade were moderately higher during 1959-62 than in the previous three years' (12). Apart from the only partial problem of international prices the problem of any programme was to limit the rise in the domestic prices of the private sector while bringing about higher relative prices for agriculture, as well as of controlled prices so as to remove the induced supply rigidities. The above author finds this stress on the favourable effects which the removal of domestic price controls would bring difficult to fathom:

a) In the first place such controls were weakly enforced; at most they had a short-run delaying effect.

b) They did not alter the direction of movement of relative prices which excess demand conditions suggested would take place. If the long-run is taken (1940-1959), both in Chile and Argentina, agricultural prices rose more than industrial prices, and still agricultural investment lagged. (13).

c) After the formal decontrol governments usually continued to use pressure to restrain price increases.

3.- The first part of the problem was met by an initial restriction on the expansion of credit and wages. The second part of the problem it was hoped would be solved by an elastic response of the private sector to more profitable opportunities to export and to increase agricultural production; both supplemented by an inflow of foreign investment which stable prices and exchange rate would induce. Investment in infrastructure would be met by loans mainly from the IBRD and eventually by the increase of public savings coming from cuts in current expenditure, increases in tax revenue, and higher rates for public services. In Argentina a relatively quick response was achieved in the position of the balance of payments. It happened thanks to an inflow of foreign capital into the newly opened petroleum field to foreign investment; to a reduction in imports, mainly fuels; and to foreign short-term credits from the IMF, and various private and public credits from the United States and Western Europe. 'Domestic oil production, writes Mr. Felix, rose rapidly as a result, so that Argentina, by 1961, was largely self-sufficient in crude petroleum. However, the longer-run gain in foreign exchange savings from the reduced outlag on the import of petroleum products is being partly offset by the substantial profit transfers which the contracts entail' (14). In Chile also short and

long-run foreign credits were obtained to maintain the balance of payments position, but imports were allowed to expand so that there was a chronic deficit on current account.

C. Structuralists, of course, claim as we have seen that the Argentinian and the two Chilean programmes were failures. The Peruvian case is somewhat more controversial. Here monetarists claim success, while structuralists say that any recovery was caused not because of the IMF stabilisation policy but in spite of it. Moreover, the Peruvian economy has continued to be inflationary in the post stabilisation period (1962-66); something to which we shall turn below. Concentrating on the first three programs, in neither country was there a sustained rate of growth, during the course of the programme or after it (Argentina became a stagnant economy - 1959-1964 - and Chile's per capita growth in output was insignificant), price stability was not achieved and the rate of inflation soon came to pre-stabilisation rates; and exchange rate stability was only achieved for a short time, never longer than three years.

Monetarists have argued, of course, that the programmes failed because they were economically misconceived or miscalculated in political terms. Would the Argentine or Chilean programmes have succeeded if the authorities had held on longer or turned the contraction tighter? The vidence of the contraction measures, however, varied in each case in their attempt to reduce demand, liberalise,prices, and devalue. The Klein-Saks mission was gradual and cautions. But the second Chilean effort tried to impose the adjustments more speedily (the 1951 devaluation was particularly sharp and credit was rather restricted). The Argentine measures were the severest of all. Thus, since all three efforts ultimately failed, the most evident lesson is that differences in timing were probably unimportant in explaining the ultimate failure of the efforts. For Mr. Felix, for example, the failure lies elsewhere because the programmes were simply not reallocating resources in the directions needed to create viable growing economics 'It seems to have been due (the failure) in excessive confidence in the efficiency of the price mechanism and to a failure to take account of the adverse effects of the MST pattern followed... on the structure of consumer demand and the capacity to import' (15). Professor Seers puts in a forceful manner: 'The charge that can be made against the monetarist school is that it directs attention away from the fundamental problems of economic growth, and so discourages the search for political strategies and economic plans to solve these problems. It puts forward instead a panacea, irrespective of social reality... the paradox is that thoughtthe monetarist is normally far from revolutionary, and his preference is for peace and quiet, his policies may lead to social disorder and eventually regimentation of one

form or another. His nostalgic wish for a re-establishment of XIX century security is unattainable, and by pursuing it he may hasten the current dissolution' (16). Let us then see what the general structuralist explanation of such failures is.

The overall criticism, in the words of Dr. Sunkel, is 'In fact, neither stabilisation nor development was achieved' (17). In ECLA terminology this was no single or propagating factor -credit, public expenditure, wages, devaluation, or interference with the price mechanism - to blame. But, in all cases the collapse of exchange rate stability, after the previous massive devaluations, eventualle collapsed and resulted in the costumary price increases. In each programme the exchange rate, moreover, was held only by drawing on foreign credits and reserves long after price increases had wiped out the initial cost-price gap created by devaluation. The balance of payments deficit, whose elimination was the main purpose of stabilisation, in realisty increased. This, according to Dr. Sunkel, was due to an excess freedom to import and the long-run persistence of unfavourable conditions in world markets for basic products. Consequently high short-term foreign debt were accumulated, without such debts contributing to the increase of the productive capacity of the economy, as it will be seen in what follows. The most critical situation, as described by Mr. Felix, is that of Argentina: (18)

Despite a number of earlier debt renegotiation agreements, the short-term external debt obligations (five years or less maturity) were reported in 1962, as follows:

1962	.....	277.2
1963	.....	384.5
1964	.....	459.7
1965	.....	318.5
1966	.....	246.5
		1,686.4 (millions of US dollars)

In addition, the external debt of the private sector was 283.7, * while the long-run was 751.6. This is even more serious in the light of the fall of the central bank gold and foreign exchange reserves from a high of 705 in 1961 to 215 and in 1962, and average annual exports of 1000 millions. Moreover, profit transfers from the foreign petroleum contracts and the inflow of private direct investment generated on additional service demand for foreign exchange. (For the new renegotiations of repayments and the inability to meet them in 1965, see Part II, Chapter III, section b).

*All figures in millions of US dollars

The conclusion was that stabilisation had not only failed to solve the balance of payments deficit but that it had made it worse.

Still, from the domestic point of view, stabilisation brought an initial respite in inflation which soon evaporated. For structuralists the rate of price increases was reduced, but only at the expense of the low income groups and of a liberal policy of imports of foodstuffs and industrial consumer goods. Both measures hurt domestic manufacturing industries whose level of demand declined, causing unemployment. As a result of the general decline in effective demand, greater competition from imported manufactured goods, the difficulty of exporting industrial goods, and insufficient agricultural output the level of investment declined. This for structuralists amounted to a permanent harm to the rate of growth.

The insistence that the failure could be found in the behaviour of wages was also unfounded. Since wages had lagged substantially during the early phases of stabilisation, it was unfair to blame the workers for later resisting further cuts in real wages (See Chapter I).

Superficially, the fact that accounted partially for failure was that deflation - through cuts in public expenditure, controls in wages, and a credit squeeze- was eventually to become a contradictory policy. Monetarists policy explicitly claimed that surpluses in current account would be achieved both through increases in tax revenues and reductions in expenditure. In fact, with deflation there was a failure to increase tax revenues; there was insignificant growth in the income of the private sector; deflation increased the evasion of taxes; income tax revenues were reduced, etc. The credit squeeze, as conceived, resulted in the strengthening of 'other financial intermediaries' more speculatively oriented. The lag in real wages also resulted in wage increases. With time, structuralists claim, it was no wonder that in the phase of growing unemployment public expenditure cincreased (current expenditure expanded in the form of salaries and employment in the civil service), and budget deficits widened which soon resulted in a forced expansion of credit and wage allowances. Thus the following of orthodox policies at the expanse of growth can only last for a while. Failure reappears in the form of deflation accompanied by a renewed price spiral.

Leaving aside orthodox and incomes policy, the most obvious failure may be understood through the slow growth during the course of the programme. That is, in none of the cases did the economy respond to the apparent opportunities created by a wage lag, devaluation, and foreign credits, either with increased exports or with a sustained rise in domestic output, principal-

ly agricultural.

Insisting at some point in the programmes the stabilisation effort failed in terms of the propagating factor of inflation. 'in the face of the pressures from the business sector and unemployment, says Dr. Sunkel, governments were forced, after a period of strictly pursuing a stabilisation policy, to expand public investments and to slacken credit restrictions' (19). With such an increase in effective demand, structural inflationary pressures appeared once more as a consequence of an inelastic supply of food and due to the rigidity of certain basic services. Above all the balance of payments crisis became more acute, due both to the increasing imports caused by the recovery of activity and incomes, and to the difficulty of controlling excess imports as a consequence of the abandonment of the system of import controls. Countries found themselves with a situation similar to the one existing before the stabilisation programme, but with a greater foreign debt. Also, for structuralists, the programmes had contributed to a more regressive distribution of income; to discouragement of some investment in manufactures, and to the neglect of essential infrastructure works, plus unemployment. Moreover, the much publicised tax reforms never came to existence during the programmes. 'The failure of the programmes to overcome the sluggishness of the postwar...economies strengthen the view that the major rigidities are deeper-rooted than had been assumed by the monetarists, says Mr. Felix, and were caused rather than results of inflation (20'. Structuralists, as we have seen, signal out the capacity to import, the institutional defects in agriculture, the contradictions of MST, and so on. So that from here one could incorporate the structuralist theory of Lat in-American inflation.

The final criticism may be summarised with professor Seer's words: 'if the payments crisis of a country is not a <u>temporary</u> problem but a chronic one, in fact an inevitable feature of the present period for most developing countries, there can be no question or righting it by mere monetary restriction or by devaluation; indeed if such measures succed in lowering investment, they will postpone the day when the economy will be viable in foreign trade. So the IMF is really grappling with a problem that cannot be solved within its terms of reference...(The IMF) was set up in fact, to help industrial economies meet such temporary difficulties (so they would not have to indulge in policies of financial deflation!). Its role in the economies of development was never envisaged (21)'.*

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*From the excellent article on the subject <u>De qué tipo de inflación latinoamericana estamos hablando?</u> by A. Lagunilla Inárritu in Comercio Exterior, Mexico City, 1966.

An important thing to underline is that the failure of the orthodox programme and the increasing diffusion of structuralist thought (mainly through the influence exerted by the Rio de Janeiro conference on growth on inflation early in 1963) had a short-run influence on the economic policy followed by the majority of the selected Latin-American countries. Nonetheless it should be taken as a short-run influence because by the second half of the 1960's the principal semi-industrialised countries of the region are back on orthodox policy**. Presumably this happened because the shock created by the stabilisation programmes had withered-off; military coup-d'états had taken over in Argentina, Brazil and Peru; and the Kennedy era was coming to an end, with its emphasis on the Alliance for Progress and economical and institutional reforms. 'It is evident that the IMF's ability to impose terms had depended in good part on the willingness of US governmental lending agencies, writes Mr. Felix, to make the granting of credits contingent on an IMF agreement being reached. Such collaboration was the rule during the Eisenhower administration but under Kennedy's Alliance for Progress the two suppliers of credit have tended at parts to part company, and as a result the IMF's leverage has been weakened' (22).

It is thus important to emphasise the importance of structuralist thought well reflected in the ECLA literature of the period (23). In general terms one can say that such an influence was felt between 1963 and 1966. Thus the exclusive preoccupation with stabilisation gave way to more complex plans, in which aims were rearranged in order or priority in terms of the objectives of development and domestic and external stability. These aims conflict with the previous assumption that monetary stability is sufficient to pave the way for development. The changes in the context and priorities of policy were made explicit either in growth policy itself or in government declarations:

** This is an overstatement to be taken with caution. The Peruvian military government appears to be nationalistically strong-minded (1969); the much publicised Brazilian stabilisation policies have come to an end (1969), and the Frei government in Chile has moved away from the orthodoxy of its initial years in office.

1.- In Argentina President Illia's National Plan of Development stated its objectives in terms of income per capita growth, a progressive distribution of income, increases in consumption compatible with unused capacity, and a progressive elimination of inflation (24).

4.- In Chile, official declarations resumed the position of the new government of president Frei in the objectives of 'a fight against endemic inflation, escape from output stagnation, the progressive distribution of income, agricultural and educational reforms' (25).

3.- Peru, recovering from the 1958-1961 stabilisation programmes, was in a full swing of public expenditure, a buoyant export market, and a high rate of growth (26). Although one cannot speak of a significant development policy.

4.- In Mexico - although in this country important economic institutional changes had taken place since the 1930's - public investment and current expenditure were at their highest; there was further agricultural growth and new land donations; the capacity to import was increasing through tourism, higher exports, some industrial exports, and increasing foreign loans, later to be followed by a foreign investment boom. The overall explicit policy objectives were a high rate of growth and a progressive distribution of income. Moreover, there was a fiscal reform being implemented. The exception to the growth emphasis was, however, a cautions monetrary policy.

5.- In Colombia policy continued to be quite unorthodox, and there was no intention of implementing a stabilisation programme despite pressure from the IMF; although by 1965 short-lived stabilisation measures were taken.(27)

6.- In Brazil, unorthodox policies were followed up until some pint in 1963, namely under the guidance of Dr. Furtado, after that the ideology of the new military regime is somewhat confusing. The New Programme de Accion del Govierno for 1964-66, headed by Dr. de Oliveira Campos (a monetarist) claimed the following: (a) 'the free play of market forces does not necessarily ensure the formation of adequate savings; (b) the price system does not always foster the creation of external savings given the disassociation between profitability and social productivity; (c) the free play of market forces does not necessarily result in a satisfactory distribution of income' (28). Nonetheless, a de facto stabilisation programme was instituted. Its main tools were, again: a reduction of budget deficits, an incomes policy, which amounted to a wages freeze, and a selective credit squeeze which would favour the private sector (29).*

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*For a discussion on the Estrategia da Estabilizaçao in the programme see DR. Simononsen, Chapter 14, op. ct.

The intention of all these policies was to contain inflationary pressure through a graducal process of reduction in the rate at which prices increased, in such a way that it would not conflict with growth. The results are contradictory, of course, because some countries did grow (Peru, Mexico and Colombia); others recovered (Chile and Argentina): and Brazil had a fall in the rate of growth. Asfar as the gradual reduction of inflation, every country except for Mexico, continued to have a fast rate of inflation above at least 7% and usually reaching more than 20%

The next step is to go into the survey of the well known stabilisation policies implemented in Argentina, Chile and Peru. From the exposition of this work, however, it should be understood that full justice to structuralism would take the form of a complete survey of the different and varying economic policies adopted in the selected countries during the period between 1946 and 1965. That is, in principle, structural theory and policy thought has been developed to explain inflation and to device policies that reduce it without the sacrifice of the rate of growth.

Still, one is here interested in how actual orthodox economic policy in the inflationary countries may be interpreted in structuralist terms. This means going not only into the short-run policies of the semi-industrialised countries but into those of Bolivia and Paraguay -which followed financial policies independently of the trends in their foreign sector with resulting hyper-inflation- and of Ecuador, which has managed to have a rather flexible and successful financial policy together with mild growth. Specifically, one thinks that a close analysis of the Bolivian and Paraguayan inflations and successful stabilisation policies would provide a greater insigut into the Monetarist-Structuralist controversy. A study into Ecuador's economic policy would provide further understanding of the phenomenon of how an expanding external sector may be compatible with flexible short-run policies, price stability, and sustained mild growth. Such compatibility would of course, have to be confronted in monetarist and structuralist thought.

The cases of Brazil, Mexico, Colombia and Uruguay are obviously an integral part of the controversy. As it has been seen they lend themselves clearly to structural interpretation, but, paradoxically, in their greater complexity, they offer more scope for controversy. Over the long-run - the post-war period - they are faced with the dilemma of trying to achieve a stable rate of growth faced with chronic external disequilibrium, and varying rates of inflation. Moreover, economic policy has given priorities to different objectives at different times, shifting emphasis from growth policies to orthodox measures. Insufficient information may give rise to bewilderment not only when comparisons between countrie are tried but when a sole country is contemplated. For example, Mexico gives the

impression of a country with structural objectives, a rather considerable rate of growth, increasing stability, and apparent external equilibrium. A closer look into the economic policy, however, reveals the recurrent appearance of rather orthodox monetary and fiscal policies and of the increasing importance of external financing, which maintains the rate of growth and the balance of payments position compatible with the domestic objective of price stability. With reference to this section, it is difficult - although not impossible - to study Mexican stabilisation programmes because they are never presented in such terms. One suggestion - which undoubtedly has been carried out - is to divide the analysis of economic policy into short-run terms so as to detect the workings of stabilisation measures, and on a different level, study the performance of long-run policies and structural measures. Later, both studies should be integrated so as to compare the compatibility of incompatibility of the short and longer run policies and to see which ones have had preference over the others. A simple introductory bibliography into the subject ought to include the United Nations, El desequilibrio externo en el desarrollo económico latinoamericano - El caso de México (30); the joint work of the Mexican Government and the International Bank for Reconstruction and Development, The economic development of Mexico; Professor Vernon's (Ed.) Public policy and private enterprise in Mexico and The dilemma of Mexico's development; D. H. Shelton's The banking system, and Mexican financial development by D. S. Brothers, and L. Solís. Resuming, the question that one feels has to be answered is how efficient has Mexico's stop-and-go policies been in terms of the explicitly stated objectives of sustained growth, external equilibrium and a progressive distribution of income. We think, nonetheless, that this work has covered a small amount of experience leading to such an answer (Part II, Chapters 2 and 3).

The Brazilian and Uruguayan cases may be taken as easier to explain in structuralist terms; in so far as there were no stabilisation programmes up to the early 1960's, except for a breif stabilisation intent in Brazil in 1954-5 which rapidly failed. Indeed Brazilian economic policy came to be known as one of "who-cares-industrialisation". But, things have changed for both countries, By the mid-1960's both were facing a severer external disequilibrium and record rates of inflation. By mid 1964 Brazil had adopted a considerable wage freeze which by mid 1965 was followed by a full fledged orthodox stabilisation programme. The same is true for Uruguay in 1966. Moreover, both countries have succeeded in reducing the rate of inflation

from 60-80% to 40-60%, but the rate of growth in per capita terms is now negative in Brazil (1966) and Uruguay remains stagnant. In Brazil stabilisation measures were accompanied by the policies of the military authorities which ousted president Goulart and in both countries the political instability is high. The course of these recent events, of course, offers new material which is relevant to structuralist analysis of orthodox policy, and whose further evidence forms part of the controversy itself. A good introduction into the subject, besides the works of Messrs. Baer and Herstenetzky and H. Simonsen (31), may be obtained from the following ECLA studies: The evolution of economic policy in Brazil and Chile; Fifteen years of economic policy in Brazil, and The growth and decline of import substitution in Brazil (32). For superficial exposition of Uruguay's recent policies see the relevant numbers of the Economic Survey of Latin America; the 1965 one has a special section dedicated to Uruguayan inflation.

(b) Argentina: The Frondizi Plan (1959-1963) and Preliminars.

From the experience of this work it is believed that Argentina offers an exceptionally good example for the illustration of structuralist theories and policy thinking. The process of inflation in Argentina - which has been accompanied by growth, decline and stagnation from 1945 to 1965 - shows clearly the relationships between inflation and growth and the behaviour of the external sector, the costly and contradictory process of ISI industrialisation, the lag in agricultural production, the neglect of infrastructure, and the regressive distribution of income. On the other hand, inflation has been obviously accompanied by severe fluctuations in the propagating factors of inflation, which monetarists stress - the supply of money, the deficit financing of public expenditure, wage increases, recurrent and massive devaluations, and domestic and foreign price controls. Moreover, the Argentine example offers a variety of intricate economic policies, which range from unorthodox public interventionism to wishful reliance on the price mechanism; the former gaining ground as time passed. This section will emphasise the last experience. It should be clarified that the main object of this case study is to illustrate the failure of orthodox policies in Argentina. That is, how these policies will sacrifice the rate of growth and, what is worse, fail to bring stabilisation. But, for this case study to serve its purpose, it is also necessary to situate it in terms of the controversy. What are the origins of the inflationary spiral - monetary or structural?

To further answer these questions it is necessary to:

1.- Situate the case study in the historical context of actual policy making.

2.- But, descending, to short-run policy measures 'may show the trees and hide the forest'.

3.- Thus it is necessary to refer policy measures back to the long-run trends observed in the general study of the controversy.

Summarising very drastically the experience derived from the previous work, the structural interpretation of the causes of inflation will now be adopted. It is necessary to emphasise that the structural causes of inflation 'as an original cause of inflation', have been much at work. This granted, it is also obvious that the inflationary spiral has been accompanied by the monetarist or propagating causes of inflation, although important reservations will be adopted.

1.- The long-run structural causes of inflation have been (1945-1965)

a) A foreign exchange bottleneck. This was reflected in the instability of exports and imports, the stagnation of the capacity to import and the fall in imports of goods and services; growing foreign indebtedness and the inability to meet payments; and an eventual outflow of capital on current capital account which further reduced the capacity to import (See Part II, Chapter VI, section b).

b) A decline in per capitalagricultural and food production (see section a).

c) Import-substitution industrialisation. This resulted in a fall in the import coefficient and a sharp visible MST in the import structure. An indirect correlation between MST and inflation was noted (See section c).

d) Sharp falls in public expenditure and investment which enhanced the infrastructure bottleneck (see section d).

[redacted].

2.- The monetarist or propagating causes of inflation which developed mainly within the inflationary spiral:

a) Increases in the supply of money and quasi money were continous. In Argentina, however, they are not statistically correlated with increases in prices. In fact, the rate of growth in money and quasi-money contracted and still prices increased, and vice-versa. It is believed that, at best, monetary policy played a passive role. Rises in the exchange rate, money wages, and prices tended to be well above the raise in money and quasi money. Moreover, when orthodox monetary policy was applied, the fact was compensated by a raise in the income velocity of circulation, financial resources outside the banking system, and liquidity created by foreign capital. (See Chapter II, section a and below).

b) Budget deficits have been a permanent feature of the system, but they resultedmore from a fall in expenditures and revenue, than irresttrictive borrowing from the government. Moreover, they were weakly correlated with price increases (see section b).

c) It is usually claimed that Argentina is a good example of wage inflation. With respect to wages in industry, they manyhave played a part in the spiral but adjusting to prices with a year lag. It may be dangerous to claim that they are an originating cause of inflation, considering, among other things, the fall in real wages and the regressive distribution of income trend (see section c).

d) Devaluation of the exchange rate has played an important role as a propagating cause of inflation, although structuralists consider it areflection of the foreign exchange bottleneck (see section A).

e) It is very likely that inflation has distorted and reduced domestic savings and investment. Private foreign investment and foreign loans however, cannot be associated with movements in prices (See section d).

The magnitude of the inflationary problem has been indeed very great. During 1945-1965 the wholesale price index and the cost of living index for Buenos Aires rose 28% per annum; but it was a highly irregular raise, fluctuating from under 4% to more than 100%. Moreover, as monetarists policies gained ground price increases were higher.

It is useful to obtain a quantitative idea of how the different sources of inflationary pressure - structural and propagating - interacted through time and to what sense and extent they can explain in 'statistical' way the increase in the price level. Such analysis may also help to explain whether monetarist or structuralist factors bore greater or lesser responsibility. Mr. Diaz Alejandro has done this with the aid of a useful model, which will be now summarised (1).

He uses the following propagating variables: credit expansion to finance either public or private deficits, by the banking sector including the central bank, but specially the former; wage increases, and devaluation. No generalisation is valid, explains Mr. Diaz, but at different stages of the inflationary spiral some of the sources appear autonomous, while the others follow passively. After 1952, however, he thinks that the leading role was played by the devaluations. As a structural condition of inflation he considers the stagnation of output. Several price indices are considered and the period of study is 1945-1962. The independent variables included in the multiple regression analysis are:

1.- Annual rate of change of the supply of money in the hands of the public (n). The variable should be interpreted as a proxy of the rate of increase of bank credit. A key element of credit expansion is borrowing by the public sector from the banking system (primarily the Central Bank) to cover budget deficits. It should be clear, however, that no simple link can be established between inflati n and public-sector borrowing from the banking system; indeed, in some years (1951 and 1956) negative public borrowing was accompanied by high increases in prices, while in other years (1947), large public-sector borrowing took place while prices increases slowly.

2.- Annual rate of change of hourly money-wage rates in industry (w) Monetarists are inclined to blame inflation on the variable. As we shall later see real wages declined in Argentina starting from 1949; money wages, however, have fluctuated above and below the price level.

3.- Annual rate of change, expressed as the price of US dollars in terms of pesos (E). The inflationary autnonomous role of this variable is regarded as obvious.

4.- Annual rate of change of real available supplies (GDP plus imports) (s). Other things being equal, the greater the rate of increase, the lower the rate of inflation.

Moreover, Mr. Diaz, thoroughly uses the following measurements of inflation: annual rates of change in the general wholesale price index, the wholesale index for rural products, the wholesale index for non-rural products, the wholesale price index for imports, and the cost-of-living index for Buenos Aires.

The findings are the following:

1.- The first result was that - after including a one year lag or unlagged variables in thea multiple analysis, on averagethe price level adjusted within a year to changes in the propagating and structural factors.

2.- The equations are:

P'1=-14.3+1.13m'+0.31w'+0.30k'-1.05s; R=0.93

P'2=-15.9+1.45m'+0.07w'+0.42k'-0.53s; R=0.88

P'3=-14.1+0.99m'+0.49w'+0.22k'-1.07s'; R=0.93

P'4=-20.2+1.40m'+0.09w'+0.60k'-1.75s'; R=0.96

P'5=-10.5+0.93m'+0.50w'+0.15k-1.05s'; R=0.93

3.- With respect to the four wholesale indices:

a) The general fit in the four cases was good (they explained at least 77% of the observec changes in the price level).

b) The significant coefficient for m imply that a 1% increase in the supply of money will result in less than 1% increase in rural and imported prices, but slightly more than 1% in the wholesale and industrial prices. The values of the standard errors were such that none of these coefficients can be said to be different from one.

c) The coefficients for the wage variable, however, turned out to be insignificant, except for a slight correlation (0.46) with the index for the production of manufactures. That is, only in this case, a 1% increase in money wages will result in a 0.5 increase in prices.

d) The coefficients for K' are significant in all cases. The results showed that a 10% devaluation would increase by 3% the wholesale price index, by 4% rural prices, by 2% non-rural products, and by 6% imports (3).

e) The most significant coefficient was s. It implied that a 1% growth in total real supply would reduce by 1% the prices of wholesale goods and manufactures= the reduction being half of 1% for rural goods.

4.- With respect to the cost of living index (P5) the fit was good, and the results were the same as above for s and m, but lower for K and, in this case, significant for w.

The simple conclusion that may be derived from the exercise is that in the long inflation (1945-1962) both demand pull elements (reflected primarily in m') and cost-push elements (reflected in s and K) have been at work. These results are reifected in ther correlation with changes in the wholesale index for manufactures and in the index for the cost of living. Mr. Diaz clarifies that since 1955 devaluation of the exchange rate has gained relative importance as a source of cost-push inflation. The highest rates of inflation have been observed in years where the exchange rate was devalued and relative prices favoured agriculture. The latter may be taken as a reflection of the foreign exchange bottleneck, During the second stage, monetary expansion, which includes government deficit financing, has played a more or less permissive or passive role, when price increases originating in nominal wages and profits or devaluation were not followed by a sufficient expansion in the supply of money, the result was for output to fall rather than for prices to decrease. The cost-push nature of inflation is best illustrated in the not uncommon experience of Argentina where high rates of inflation persist when output is falling (1949, 1952, 1959, and 1962 are examples of this disquieting experience).

Having determined to a certain extent the amount of inflation and its nature, the nest step is to determine how policy performed however unsuccessful it was. That is, to follow the nature of economic policy which finally led to the stabilisation programme of 1959-1963 according to its structural interpretation

For the purpose of the case study, the inflationary experience of Argentina will be divided into three periods:

(i) The Perón's' regime (1945 to 1954) when initial favourable conditions in the external sector and a rapid industrialisation gave a certain character to the inflationary and growth process.

(ii) A transitional period (1955 to 1958) both economically and politically, when attempts were made to check inflation and recover the rate of growth.

(iii) The IMF's stabilisation era (1959-1963) when reliance was placed on the workings of the price system.

(i) The Perón's' era (1945-1954)

The amazing international discredit which followed the death of Mrs. Per and the downfall of general Perón, has shied economists - even structuralist from casting a favourable look into the regime. One thinks, however, that t policies of the time ought to be interpreted as an exercise of structuralist economics; considering Argentina a variant of the ideal structuralist model

Two sub-periods should be considered with reference to inflation, growt and short-term policies. The first (I) goes from 1945 to 1948 when inflatio was accompanied by a rapid increase in GNP, per capita income, imports and a progressive distribution of income. The second (II) goes from 1949 to 1954 and is characterised by an unfavourable turn in the external sector, sharper price increases, a fall in the rate of growth, and unorthodox attempts to reduce inflation.

I. The peak of the Perón's' era (1945-48).

Following structuralism, what are the main characteristics of this three-year boom?

1.- The average rates of growth was 12%, gross fixed capital formation was extremely important (34% ~~85%~~) and producers fixed capital expanded at recor figures (85% ~~250%~~) (See Table II). Thus income per capita grew very rapidl

2.- The main factor that is signalled out is the very favourable external sector conditions. The external terms of trade improved enormously (Se Table I). The external demand for Argentina's products was so high tha the value of exports rose from 700 million dollars in 1945 to 1500 millions in 1948. On the other hand foreign exchange reserves had beer built up during the war and stocks of export products had accumulated. With the end of the war shortages of imports were no longer an obstacle to renewing and enlarging the capital stock. Thus there was an expansion in public and private investment and consumption and expansive monetary and fiscal policies. Moreover general Perón managed to nation alise the bankrupt railway system and to repay foreign debts, reducing

TABLE I

Argentina: External Terms of Trade
(1938-9 = 100)

Year	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
TT	82	112	134	132	109	103	102	70	93	84	82	75	68

Source: Economic Survey of Latin America 1957, UN, N.Y.

TABLE II

Argentina: Percentual change in the Volume of GNP and its Major Components
(1945-1948)
(1950 prices)

	Total	Yearly
GNP	37	12
Consumption	22	7
Private	22	7
Public	23	8
Gross fixed capital formation	103	34
Construction	38	13
Producers' durable capital	256	85
Manufacturing Industries (1943=100)	137	7

Source: E Eshag and M. Thorpe, op. cit. (pag. 9) and United Nations Statistical Yearbook, 1950.

Argentina: Structure of Manufacturing

	1939	1946
Establishments (thousands)	46,566	78,798
Power Installed (per capita)	1,187 1.88	1,915 1.69
Employment (thousands)	556	1,056
Wages (millions)	850	4,548
Value added per employee	1.65	2.39

Source: Patterns of industrial growth, 1938-58, UN, N.Y., 1960

the servicing from 170 million dollars in 1945 to 10 millions in 1948.*

3.- The growth of activity, however, was accompanied by a sharp increase in all categories of imports so that, even with expanding export sales, there was a deterioration of the balance of payments position and the surplys on current account of 1946 was eliminated. At the same time prices continued to increase. These increases, which were more or less in line with world price movement in the immediate post-war years, was only in part caused by excess demand. The prices of imports alone rose by 40%. Structuralists are going to claim that this sort of inflation in a booming economy is easier to handle and a result of rapid growth.

4.- The government was thus following an expansionary policy which contributes, besides the rate of growth, to large employment, wage increases, public and private consumption in the context of easy money policies and world wide inflation. The money supply rose at an annual rate of 27% and hourly money wages by 35% per year, while retail prices only increased by 15% a year and wholesale prices by 12%. Structuralists stress these relations because later, when inflation was combated with orthodoxy, the rate of inflation increased together with a fall in output.

Despite these trends, both monetarists and some structuralists were highly critical of the Peronist economic policy, although for different reasons:

.- Monetarists mainly signal out that price controls - in agriculture and public and private services - and an over-valued exchange rate distorted private and public investment, and discouraged exports and scared foreign investment. Wage increases, the expansion of credit and deficit financing are blamed for the inflation.

.- Structuralists mainly say that economic policy disregarded agriculture, certain sectors of industry, and infrastructure (transport and energy).** With respect to public expenditure, for example, Eshag and Thorpe write that over 1946-1948 over one third of gross domestic capital was accounted for by public investment, of all this over one half was devoted to construction of other categories of non-industrial investment.** Still, an increase of 85% per annum in durable capital seems a good order on any account. On the other hand it is claimed that maintaining the prices of food and rents low, at a time when employment was high and money wages were rising rapidly, allowed private consumption (7% per annum) to absorb an unduly large proportion of the growth in

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*For a discussion on these trends see Mr. E. EShag and Miss R. Thorpe (2)

**For a discussion on the subject see professor Maynard (3).

in real income. What one has to remember is, that effective demand was bei created for manufactures, something which aimed at reducing the costs of th costly MST process. Other structuralists, like Dr. Prebisch, have said tha the exceptional foreign sector conditions were not used to proceed with MST in petroleum and steel, sectors that later accounted for a large and rigid part of the import schedule with contracting value of exports. This may ac count to saying that t e government did not forsee the fall in exports.

It is important to insist that the sub-period was characterised by rapi growth and increased inflation and that, henceforth, inflation speeded-up a growth declined. Moreover, as it may be seen from the structure of manufac ing (See Table II) the advance was enormous. Structuralist signal out two causes: with the deterioration of the external sector the full force of st tural bottlenecks could not be held back, economic policy started to move t wards orthodoxy, and, what is paradoxical for monetarists, the propagating causes of inflation accelerated.

(II) The first round of severe inflation (1949-1954).

The thing to note about this sub-period is that non-orthodox (Peronist if one wants) anti-inflationary measures were introduced in 1950-1952.

As long as export demand had been strong and the country had ample for eign exchange reserves to finance its import surpluses, the structural im- balances were not obvious. It was only after 1948 when the foreign exchang reserves had been depleted and export demand began to slacken, that the ser forces behind inflation became evident. Inflation accelerated very fastly GNP fell rapidly (1950-1952). Professor Maynard, a structuralist, says tha 'the rather paradoxical result that steps that eventually have to be taken t alter the fundamental imbalance of the economy tend, at first, to accelera rather than dampen inflation (4)'. Before turning to the policy measures, is convenient to see how structuralists explain inflation in the short ter There are, again two main causes:

1.- By 1950 the external terms of trade was 30% below the 1948 level and, excep for a brief respite during the Korean War, they kept declining. Thus expo value fell and, since there were insufficient reserves, the desequilibrium the balance of payments led to a 56% devaluation of the free exchange rate.

2.- Agricultural output declined sharply (See Table IV).

3.- The effects on the economy were noticeable. Prices increased on average by 34%. GNP declined by 3% and gross capital formation fell at least 18%. In contrast with the previous period, hourly-money wages in industry rose by l than prices (27%) and the rate of growth of the supply of money also lagge behind (23%). Moreover, public expenditure fell slightly, but public con- struction kept on growing. Still private consumption increased (See Table

TABLE III

Argentina: Indices for GNP and its Major Components, 1948-1955, at 1960 prices (1948 = 100)

Year	GNP	Consumption			Gross Fixed Capital Formation		
		Private	Public	Total	Construction		Durable Capital
					Public	Private	
1949	99	111	92	86	129	98	63
1950	100	107	94	84	122	111	54
1951	103	112	95	92	143	113	61
1952	97	106	96	82	119	105	53
1953	103	104	94	85	134	103	56
1954	108	114	99	81	119	104	53
1955	116	127	104	90	105	115	64

Source: Eshag and Thorpe

Argentina+ Indices for the Cost-of-Living and Industrial Earnings, 1948-55

(1948 = 100)

Year	Cost of Living	Money Earnings	Real Earnings
1949	131	136	104
1950	165	165	100
1951	225	209	93
1952	312	257	82
1953	324	281	87
1954	337	327	97
1955	378	367	97

Source: Idem

TABLE IV

Argentina: Output Indices for Agriculture and Livestock
(1960 = 100)

	1945-49	1950-52	1953-55	1956-58	1959-1961
Grand Total	92	83	100	98	100
Agriculture	86	72	95	94	98
Cereals	98	60	99	92	96
Industrial crops	74	85	87	97	99
Livestock	100	93	105	102	101
Cattle	98	92	105	103	103
Wool	107	95	98	91	99

source: Cuentas Nacionales de la República Argentina, Buenos, Aires 1964.

What were then the non-orthodox stabilisation measures?

1.- The immediate reaction of the authorities in 1949 was to restrict imports in various ways (tariffs, prior import permits, price controls, and so on). The official exchange rate was fixed throughout the period. Thus imports declined steadily and steeply from 1949 to 1953 so that the volume was in the end less than half of what it had been in 1948.* This amounted to a sacrifice of the rate of growth.

2.- On the other hand, policy was geared towards the encouragement of agricultural production and exports by means of price incentives. Thus food prices increased more rapidly than the cost of living index and the einternal terms of trade favoured agriculture.** The policy had little effect in stimulating agricultural activity, partly due to uncertainty and partly due to bad harvests in 1950-1952. Structuralists emphasise that the land tenure system was resulting in a bottleneck, plus the fact that landlords were rallying against the regime.

3.- Faced with this situation - inflation and a fall in agriculture, imports and exports - the government introduced the first restrictions on fiscal and credit variables, which were particularly severe towards industry. There was, however, no devaluation and wages continued to increase, and public construction kept on growing. Since money was scarce monetarists blame inflation to these factors. Devaluation would have almost certainly made inflation worse, while wages probably played a part in the spiral. But, in the face of the contraction of supply and imports, it is hard to see why wages should take the brunt of the responsibility, (real earnings in industry fell 13%). In fact, the results of the external and agricultural bottlenecks resulted in what were to become permanent characteristics of the system: a decline in the capacity to import and higher prices for food which initiated a wage-price spiral and a tendency towards stagnation. The fundamental issue, writes Mr. Diaz, in the inflation since 1949 has been the struggle among the three powerful groups of rural producers, industrial wage earners and non-wage earners' (6). Judging by income distribution figurew the wages sector lost.

** Food prices for 1950-1953 increased 37, 37, 45 and 5%, while prices wntup 33, 33, 38 and 5% (United Nations Statistical Yearbook, 1956).

* See Eshag and Thorpe (5).

4.- The above policies were accompanied first by a stagnation and later by a decline in industrial production and employment. Manufacturing outp fell by some 6% from 1951 to 1952 and remained at the level in 1953. dustry was forced to work well below capacity - at 50% level in some c and bankruptcies were widespread.* These measures probably led the en preneurs and the banking interests away from general Perón, whose sole port became the wage sector.

5.- Nonetheless, these costly measures were strikingly successful in checki inflation: prices in 1953 were only 4% above 1952, and rose only anot 4% in 1954. This coincides with a striking recovery during 1953-55 (o put rose 13%). Agriculture, however, only contributed to this growth recovery in the production of cereals and cattle slaughter.

6.- The point is that by 1956 the financial and industrial situation had b come unbearable, so that financial restrictions had to be eased. Easi credit was allowed, public investment and consumption recovered, and t were higher imports.

7.- The short term compatibility between growth and relative prices, in the circumstances, is hard to explain in monetarist terms.

But, in the midst or recovery, the political forces against the regime s ceededwith the intervention of the army in deposing general Perón. A new p for economic policy thus began. From the economic point of view it is diffi cult to understand why the first interest of the new government was a stabi lisation programme. Indeed, income was growing and for the first time in t decade, there was virtual price stability! Aside from politics, it is true that the new government was commited to devaluation and the balance of pay- ments situation was precarious. This, however, returns one to the foreign change bottleneck. The next three-year period will be considered a transit towards more orthodox monetarist policies.

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*On these points see professor Maynard (7).

(ii) The so-called Prebisch Plan (1955-1958)*

Dr. Prebisch's propositions appeared in his Provisional and final report and economic recovery programme and Sound Money and uncontrolled inflation (8). His first recommendation was devaluation, and one official exchange rate instead of the multiple system, plus a free exchange rate market for trasactions not covered by the official rate. The new exchange rates, in effect, were accompanied by nonuniform surcharges and taxes on imports and exports. The exchange reform freed about one third of all imports. Most invisible and capital transactions were permitted through the free exchange market. Quantitative restrictions, however, were maintained on most imports and prohibitions on some, mainly consumer durables and capital goods. The reform was only a step towards a uniform and free rate. However, devaluation and the exchange rate policy proposed by Dr. Prebisch should be taken in the following context: they were measures taken to face the critical situation in the balance of payments, with mild inflation and economic recovery.

From the author's theoretical work, as it has been gathered, the aim of his stabilisation programme was to ensure industrialisation with increasing compatibility with price stability. He stated the need for a transfer of real income from the industrial and urban sectors to the rural sector and to increase investment, domestic and foreign. He foresaw that devaluation would lead to a 10-15% rise in prices. Thus he suggested that initially money wages in industrial workers should be raised by the same increase. The government was to ensure that such wage increases would not be passed on to consumption in the form of higher industrial prices, through a selective monetary policy and fiscal measures. Additional real income for rural producers was to be obtained by a cut in industrial profits and from expected rises in industrial and agricultural productivity. But, further wage increases were to be severely limited to increases in labour productivity.

Dr. Prebish stressed the necessity of avoiding deflationary policies and unemployment. He explicitly linked the obviousneed for increased imports -raw materials, intermediate products, and new capital goods- to the efforts of attracting foreign capital, since export possiblities were not attractive. He was more interested in controlling the import of capital goods than intermediate goods and raw materials. Implicitly he was recommending that some MST should move in the direction of capital goods, mainly, steel and the potential oil industry. Another reason for his interest was that a cut in consumption, especially wage earners consumption, would tend to reduce imports by much less than a cut in investment. Thus, given a certain availability of foreign exchange, Argentina would find the substitution in the import bill of investment goods for noncapital goods a burdensome process in terms of the living standards

*(See footnote in the following page)

TABLE V

Argentina: Indices for GNP and its Major Components, 1955 - 1958
(1955=100)

Year	GNP	Consumption		Total	Gross Fixed Investment			Manufacturing
		Personal	Public		Construction Private	Construction Public	Durable Capital	(1955=100)
								118
1956	102	101	107	105	103	85	109	117
1957	107	104	105	120	113	107	128	121
1958	113	110	107	123	106	148	129	126

Source: H. Eshag and R. Thorpe and Statistical Yearbook, U.N. N. Y., 1961

Argentina: Indices of the Cost of Living and Industrial Earnings
(1955 = 100)

Year	Cost of Living	Money Earnings	Real Earnings
1956	113	113	100
1957	141	152	107
1958	186	212	114

Source: Idem

Terms of Trade
(1958 = 100)

1950	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
142	109	100	102	100	111	118	108	92	119	126

Source: Bulletin Estadístico de América Latina, UN, N.Y., 1965.

and unemployment. Yet, investment in key sectors was a long-run necessity to expand output simultaneously with balance of payments equilibrium. This dilemma led Dr. Prebisch to recommend some forms of state cooperation with foreign capital in the development of oil resources, as well as in industrial sectors.

In summary, Dr. Prebisch, hoped to escape the inflationary effects of devaluation, initial wage increases, and a weak export market through a cut in industrial profits, increased agricultural and industrial productivity, and foreign capital. Moreover, the expansion of the capital stock was to be small, and monetary and budgetary policies were to be relatively restrictive.

Economic events and policies were, however, different. 'It would be wrong to consider these recommendations, write Mr. Eshag and Miss Thorpe, as being wholly responsible for the subsequent economic developments, since the government for one reason or another did not follow some of the most important provisions urged by Dr. Prebish in his reports' (9).

This period ought to be taken as a 'peculiar transition' towards orthodox stabilisation policies. In this context what were the main characteristics of economic policy?

1.- It is said that the growth plans of Dr. Prebisch to increase agricultural productivity, infrastructure investment, oil and steel investment and substantial foreign loans were neglected. But, on the other hand, there was a 'self-defeating' emphasis on orthodox monetary and fiscal measures, except for the need of wage control. Clear price incentives were given to the agricultural sector. Besides devaluation, a free exchange rate policy was adopted in principle ~~1~~ although some import and price controls were maintained - as well as a multilateral system of trade and payments, as against the bilaterism of general Perón' régime. Thus there was a peculiar mix of tentative economic policies.

2.- The desire to achieve external equilibrium, paradoxically, was accompanied by mild growth and increasing prices. After the setback in 1955 - caused by the political upheaval - GNP rose at more than 5% per annum, consumption increased and a gross fixed investment rose 10%(something which only amounts to a recovery from the 1949-1952 figures, see Table V).

3.- The 1955 devaluation did increase rural prices and import prices. In fact, the terms of trade became favourable to agriculture. But by 1958, in spite of small doses of devaluation, domestic industrial prices caught up and the whole of the cost of living index soared-up from 1955 to 1958. The removal of import controls however, moderated import prices.*

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*(From previous page) Dr. Prebisch expressed serious doubts as to how his recommendations were followed and withdrew his name,

*(On this page) See Mr. Díaz Alejandro (10)

4.- Monetarists and structuralists find different explanations for the incr in inflation. The former emphasise the role of wage increases in indus Massive increases were indeed granted, perhaps to compensate the powerf trade unions for Perón's ousted. In fact, industrial-monetary earnings wages increased 112% and real earnings 14% (See Table V). What is impo ant, is that non-wage income in the industrial sector also increased, i spite of the price controls to avoid higher industrial prices.* Since n wage income in the industrial sector did not suffer and the agricultura prices improved, the brunt was presumably taken by the service sector, cluding the civil service. Judging by the outcome in the redistribution income, the result is rather confusing: the share of wage income fell (nonetheless) from 47.0% in 1955 to 44.8% in 1957, but recovered to 46.5 in 1958. This changes can only be taken as relative evidence of the ro of wages in the price spiral.

5.- Structuralists, on the other hand, are going to blame inflation to the behaviour of the agricultural sector and the erroneous policies followe in industry and the external sector superimposed on the long-run trends the economy.

a) In fact, not all was well in the stagnant agricultural sector (see Table IV), again). Technological improvement and investment, despi price incentives and the retention of some subsidies, was presumably insufficient. The institutional arrangements in agriculture are then blamed for the bottleneck. Any increase in production was a result in the cultivation of land used for cattle raising, which was slaughtered. Cattle population declined 14% between 1956 and 1958**. This trends, aside from external demand, affected the external sector unfavourably.

b) The external terms of trade were 30% below their 1950 level and much more with reference to 1948 (see tables II and V). Exports only increased 4% between 1956-58. A closer llok at the quantum indices of the major export items, shows that the increase arose from rather perverse reasons. Thus exports of wheat, maize and wool commodities whose prices were favoured by the domestic policies, decreased substantially between 1954 and 1957.

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*See Eshag and Thorpe (11).

**[illegible]

On the other hand the export of meat increased by 64% and for hides 40%, while their prices hardly rose. Moreover, increases in exports that deplete the capital stock can hardly form the base for a substantial improvement in the balance of trade.* The basic discouraging fact was that neither agricultural nor livestock production rose, in spite of the expansion of acreage and the incentives.

c) The volume of imports, which only declined in 1956, was allowed ti increase in 1957 and 1958. In the context of structuralists' interpretations - the growth in income - this was a sine qua non. Similarly, this resulted in deficits on current account and short-term foreign loans. The quantum of imports increased under the influence of a sharp increase in capital formation and more liberal import licences. The deficits on current account were mostly financed by foreign capital, although a further drop in gold and foreign exchange reserves took place. By 1958 the current account deficit again grew far beyond. the foreign capital inflow, further reducing exchange reserves and increasing the official external debt.

d) It is important to emphasise at this stage that the policy to create stability was failing in a rather contradictory manner. The situation was the same as in 1955, but with a severer external imbalance and raises in prices from a minimum of 4% in 1954 to a maximum of 32% in 1958. The two trends accompanied a substantial rate of growth. As it was said, the growth in output, employment and specially in capital formation was high. This is explained by the fact that MST continued to proceed, and imports recovered. Fiscal and monetary policies, despite the claims, turned out to be more permissive than the Peronist measures! Only in 1956 was public sector borrowing negative, later it increased considerably. Budget deficits were not reduced and public expenditure and investment increased while no significant raises in taxation were apparent. Bank credit to the private sector expanded by about 24% until 1957, although afterwards tight credit measures were taken. The point is that, had the authorities followed their orthodox monetary policies, there might have been a deflation with price increases and perhaps external equilibrium. As it turned out, neither objective was achieved: prices had reached a full force again and net official gold and foreign exchange were negative. The structuralist lesson for 1955-58 although simplistic, is relevant: pursuing equilibrium disregarding the foreign exchange, agricultural and infrastructure bottlenecks appears to be doomed.

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*See Díaz Alejandro (12)

Nonetheless, the general disequilibrim only helped to convince Argentinian monetarists and the IMF that 'more stabilisation' was necessary. Moreover, the political reins were in their hands. Hence the next period became a rigid, however absurd, exercise on monetarist policy.

(iv) The Frondizi-IMF Stabilisation Programme (1959-1963)

It is said that in late 1958the IMF suggested several stabilisation plans and that president Frondizi chose the harshest and the most austere one. The interest of the new administration in attracting a large amount of foreign capital - mainly in the form of loans and oil investment- may have been the cause for such an attitude, as well as the state of the balance of payments. The president asked Argentinians for two years of austerity and sacrifices.* Mr. C. Alsogaray, minister of both Economy and Labour declared himself a disciple of post-war German liberalism and urged Argentina to copy Germany's example (14). The ideology of the plan presumably came from the previous 'softer' plans and from the Chilean experience. It was felt that failure could be overcome through a sharp turn towards free enterprice economy; and that the trasfer of real income to the rural sector could only come from the wage sector (a post devaluation money-wage lag was considered essential). All in all it was shock treatment, which enhanced an era of severe social and political difficulties and culminated in the coup d'état of 1966.

The recommendations made by the IMF to Argentina may be summarised grossly in the following points:

1.- Achievement of internal and external equilibrium and the restitution of the freely operating market mechanism

2.- Inflation was said to be mainly caused by excess demand resulting from an expansion in the supply of money and public deficits.

3.- The growth of demand should be curved through monetary, fiscal and wage policies.

4.- There was to be devaluation and the elimination of controls both in external and internal activities; so that market forces operating in an environment of stable prices would in due course ensure a 'sound' rate of growth in output and employment.

These were, of course, more than recommendations. 'Throughout their period of five years, write Eshag and Thorpe, the Argentine authorities followed closely the policy recommendations contained in the IMF reports. The successive missions of the IMF to Argentina ensured a continous and close supervision of the measures taken by the Government (15).

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*For a discussion of these issues see Mr. Díaz. (13)

Judging by these reports and from the analysis of the author's cited what were the measures taken in 1959?

1.- There was to be a reduction in the budget deficit, principally by the curtailmenteof total public expenditure (reduction of payments to state enterprises, wage controls, elimination of cost-of-living adjustment clauses, and so on. Public revenue was to be increased through higher taxes and penalties for evasion.

2.- A severely restrictive credit policy to contral bank advances to the government and private sector. The moves to restrain the supply of money were higher and compulsory liquidity requirements (raised from 20 to 30%); total reserve requirements against new net demand deposits became 60%; rediscount facilities were limited and total mortgage loans reduced.

3.- A free exchange rate policy.*

4.- With respect to foreign trade, all direct controls were abolished. The government could only retain import surcharges and export retentions or taxes which the IMF permitted as temporary measures.**.

5.- Producer subsidies were eliminated (except for sugar); virtually all internal price controls disappeared (meat, interest rate, urban rents, etc.) minimum support prices had no effect since transactions were carried out at prices above the official levels; and public service prices were allowed to increase. So that price distortions were eliminated

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*According to ECLA in 1958-9 the foreign exchange value of the peso fell by 50% after three months.

**Mr. Díaz rightly complains that although all requirements for import licences were abolished, new advalorem import surcharges were decreed, thus coming clos to multiple exchange rates. In fact, surcharges ranged from zero for some raw materials to 500% for some manufactures produced domestically and non-essentia goods. Advanced deposits on imports were increased and about 80% of the items listed for import surcharges were affected. Export retentions were announced: 10% on the fob value of exports of most livestock products and 20% on most cereals. Exports of manufactures were exempted from any tax. While the increases in import surcharges tended to increase the effective devaluation of the peso, the export taxes had, of course, an offsetting influence on the devaluation. However, the author concedes, most of these taxes were removed during 1960 and 1961 in a further move towards a free international market (16).

6.- Special measures were taken to attract foreign capital, besides the implicit loans from the IMF. Total short and medium term loans amounted to 329 millions and came mainly from the United States government, the Export-Import Bank, and ten other United States private banks. Other measures, besides the oil contracts, were taken to improve the climate for foreign capital. The plan also expressed its commitment to multilateral trade and announced that bilateral payments were to be terminated

What were then the immediate 1959 results of the stabilisation programm

1.- There was a sharp fall in output (5%), industrial employment (4%) and capital formation (9%) (See Table VI). Among the major sectors, output fell in all except for petroleum where there was an ad hoc anti-deflationary exception. Manufacturing more closely connected with non-durables consumed by the wage sector were to be hit harder, although construction and services also contracted.*

2.- Agricultural output, despite the incentives, remained rather stagnant again. Devaluation and the fact that the domestic terms of trade had now favoured agriculture for eight years in the past decade, plus the liberalisation measures, did not result in increases in output (see also Table IV).

3.- In these circumstances inflation (114%) could not be blamed on the wage sector. There was a sharp fall in private consumption (8%) caused mainly by the decline in the level of employment and in real earnings of labour, and to a lesser extent by the redistribution of income towards the rural sector. It is true that industrial wages increased (57%), but real earnings fell (27%), prices increased by more than double, wages laged behind the other propagating causes of inflation. The result was, of course, an unusual number of strikes in 1959 and frequent interventions of the army.**

4.- Very likely the main propagating factor of inflation in 1959 was the devaluation of the exchange rate. The now free exchange rate moved from 32 pesos for the official exchange rate and 66 pesos for the free market rate to 83 pesos per dollar, where it remained with the help of the Central bank until 1962. Mr. Díaz discussed with great care its impact on prices (19). He arrives to the conclusion that its impact was very significant on all cases: import prices increased, 208% on average, export prices by 177%, retail food prices by 143% and manufacture prices by 13

Both footnotes * and ** on the following page.

TABLES VI

(Indices, 1950=100)

The Volume of Gross Domestic Product by Industrial Origin

	1959	1960	1961	1962	1963
GDP	95	101	107	103	98
Manufacturing	93	98	103	99	93
Durables	92	107	125	110	98
Non-durables	93	94	96	93	91
Mining	117	165	218	248	238
Construction	91	99	106	100	86
Agriculture	99	99	97	98	96
Services	96	103	110	107	103

The Volume of GNP and its Major Components by Expenditure

(1960 prices)

GNP	95	101	107	103	98
Personal consumption	92	94	104	96	89
Public consumption	100	107	109	103	98
Gross and fixed capital total	91	124	136	133	112
Construction	92	100	106	102	91
Private	93	93	98	100	90
Public	85	114	124	103	92
Durable capital	90	148	163	163	132
Changes in Stocks (Millions of pesos)	9	6	-4	-10	-6
Exports	103	103	98	132	136
Imports	83	111	133	127	99
Foreign Balance (Mill pesos)	7	-16	-48	-8	26

Indices of the Cost of Living and Industrial Earnings

Cost of living	214	272	309	396	491
Money earnings	157	219	277	328	402
Real Earnings	73	80	90	83	82
Industrial Employment	93	89	86	82	75

Sources: Cuentas Nacionales de la República Argentina, 1964
E. Eshag and R. Thorpe, op. cit.
International Financial Statistics.

TABLE VII

Argentina: Percentage Changes in Monetary Variables, 1959-61

	1959	1960	1961
Money supply	43.8	25.7	15.0
Quasi-money and other	28.6	44.8	26.5
Banking credit to the Public sector	45.5	4.7	18.1
Net Banking credit to the Private sector	21.4	36.5	31.4

Source: D. Díaz Alejandro, op. cit. (pag. 160).

Argentina: Revenues and Expenditures of the Public Sector, 1958-61
(As a % of GNP at market prices)

	1958	1959	1960	19
I. Current Revenues	16.2	15.3	18.3	19,
Taxes	11.0	10.9	13.4	14.
Indirect	8.3	8.6	10.3	11.
D Direct	2.7	2.3	3.1	3.
Social Security	5.0	4.2	4.6	5.
Other	0.2	0.2	0.3	0.
II. Total Expenditure	21.6	17.8	18.9	20.
Consumption	9.6	8.5	8.7	9.
Interest on public debt	0.2	0.2	0.2	0.
Net subsidies	2.5	1.1	0.8	0
Transfer payments	3.9	3.9	4.1	4
Total public sector Real investment	5.4	4.2	5.1	5
III. Balance	5.4	2.5	0.7	0
IV. Net borrowing from the Banking Sector	5.8	3.1	0.4	1

Source: Idem

CUADRO VIII

Argentina: Balance of Payments

(millions of dollars)

	1958	1959	1960	1961	1962	1963
A. Current Account	-859	11	-214	-585	-273	255
1.- Merchandise						
Exports	994	1009	1079	964	1016	1366
Imports	-1253	-993	-1249	-1460	-1356	-981
Balance	-259	16	-170	-496	-140	384
2.- Transport and services	10	33	25	15	-60	-52
3.- Investment income						
Credit	11	21	31	64	8	
Debit	-42	-61	-88	-166	-80	
Balance	-31	-40	-57	-102	-72	-77
B. Non-Monetary Capital (Receipts +)	44	116	373	454	-32	-85
1.- Direct Investment	120	245	427	-13	72	84
2.- Other private capital	-113	-143	-61	305	-124	-174
3.- Government	37	14	8	162	21	6
C. Current and Non-Monetary Capital (A+B)	-815	127	159	-129	-305	171
D. Monetary sectors (increase in net assets -)	214	-119	-173	140	315	-175
1.- Net liabilities (increase +)	60	99	134	-61	9	-44
2.- Gold and Foreign Reserves (increase -)	154	-217	-306	201	306	-131
E. Errors and omissions (C+D)	-1	8	-4	11	10	-4

Source: International Financial Statistics, IMF.

Besides devaluation, price increases were caused by the dismantelling of most official controls, higher prices for public services, higher industrial costs, and perhaps a lagged effect of wage increases.

5.- The 'peculiar' thing about the 'stabilisation' measures was that monetary policy, at best, was neutral. The initial Frondizi plan had wrongly estimated that, as a result of devaluation and the freeing of controls prices would increase by 35-45%. It was thus felt that if the expansion of credit was not above such a figure, it would have a deflationary effect. This was assumed, that investment took notice (something that with shock treatment dit did). In Table VII it can be seen that monetary changes (43.8%) were kept in line with the original estimates, and were sharply reduced after 1959. Concentrating on 1959, the increases in the money supply were well below the increases in the level of prices. Other considerations, moreover, suggest that monetary policy should have had a depressing influence on output. There was a lagged effect of increases in money wages during 1958, and monetary policy was discriminatory in so far as the distribution of bank credit to the public sector instead of the private sector. It is thought that the credit expansion in 1959 actually resulted not so much in deliberate monetary policy as from unforeseen events: the Central Bank incurred on heavy losses on exchange-rate guarantees issued before 1959, which resulted in an expansion of the supply of money; while a lengthy strike of bank clerks, resulted in a reduction in commercial bank reserves below their legal limit. When these two special circumstances ceased to operate, the rate of growth of bank credit dropped sharply and the money market became tight. The income velocity of circulation of the money supply, which had increased from 5.12 in 1958 to 6.24 in 1959, remained at the same level (6.30) until 1962, but later increased again.

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Mr. Díaz notes that special attention should be given to the erroneous deflation policies in industry; policies that not only reduced effective demand but later enhanced the balance of payments position mainly through the high propensity to import of the high income groups which were to be favoured by the deflation. 'Within the category of private consumption, those products that are primarily wage goods appeared to have decreased the most... The recovery of private consumption during 1960 and 1961 was rather slow, and seems to have been mainly concentrated on durable consumer goods purchased by relatively high-income groups (See Table VI again). While in 1961 real expenditure on durable consumer goods was more than 20% above 1958 levels, real expenditure on consumer goods plus manufactured foodstuffs and other items were nearly 3% below 1958'. (17).

**The influence of this wage policy and the regressive distribution of income and inflation in Argentina was discussed in the previous chapter. For more details see Dr. Ferrer (18).

6.- With respect to fiscal policy (see Tables VI and VII, again), while public borrowing from the banking system remained at a high level in 1959, it fell considerably from 1958 and public consumption stagnated. There was thus part of the desired cut in the budget deficit. A cut in expenditure, rather than an increase in revenues, was responsible for this, since the last item fell abruptly (as a consequence of the fall in external sector taxes and evasions). The reduction in the deficit came as a result of a contraction in expenditure (subsidies to public enterprises consumption and real investment). Then measures obviously contributed significantly to the decline in output.

7.- In 1959 what has to be emphasised is that devaluation plus the freeing of the price system - together with restrictive fiscal and wages policies, as well as neutral monetary policy - resulted in the highest inflation in the history of Argentina, together with a major fall in GNP and its components. The cost of living index increased by 114%. Although the above policies contributed to this, it is also true that they had helped to ehhance the by now severe long run bottlenecks (1949-1959) in the structural variables, a regressive distribution of income included.

8.- The IMF, however, secured its other prized objective: external equilibrium only in 1959. The decline in output and aggregate demand led to a reduction in the volume of imports. Exports rose moderately -despite a fall in beef production- through a moderate rise in the terms of trade and a sharp fall in domestic consumption. (See Tables VI and VIII). The import quantum also fell because inventories of imports were reduced in anticipation of the relaxation of import surcharges and deposits. The regressive distribution of income however, tended to reduce the fall in imports, due to the observed high marginal propensity to import of non-wage earners (this was obvious in 1960 and 1961). In 1959, however, it is said that the deflationary policies more than compensated the raise in the propensity to import. The effects of devaluation on exports were also somewhat contradictory: the sector most favoured, in this case meat, reduced its contribution to exports; while the less favoured one, in this case grains, expanded its contribution and kept the over-all quantum index unchanged. Larger exports were really due to favourable crops, and by the fall in consumption.*

9.- The significant improvement in the balance of payments, however, was really secured both by the increase in foreign private investment and large foreign loans (see Table VIII, again). The favourable impact on capital account, over and above the current account surplus, would

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have been larger had not private Argentine capital left with the help of the free-exchange policy.

The IMF's mission at the end of 1959, despite the record inflation and the severeness of the deflation, was happy with the results. The recommendations set for the two coming years were similar to the previous ones:

1.- A further reduction of the budget deficit in 1960, with the aim of balancing accounts in 1961.

2.- New ceilings were placed on the expansion of central bank assets.

3.- There were to be no wage increases in the public sector and any increases in the private sector were not to be financed by credit. In fact, there was to be a reduction in public employment and higher rates in public services.

4.- The free exchange market was to be maintained, only with short-term intervention of the government, and in foreign trade there was to be further elimination of bilateral trade agreements and a decrease of import surcharges.

The years of 1960 and 1961 present a peculiar recovery in some of the economic fsectors, mainly the durable manufactures and imports. Moreover, the rate of inflation decreased considerably. Thus, on the surface all was well: there was recovery with increasing stability. Structuralists claim that the recovery and the stability were somewhat illusory, and that 'any way' t ey are hard to explain in terms of the orthodox monetary and fiscal policies adopted. What were then the effects of these policies?

1.- Turning again to Table VII, it is true that monetary policy was restrictive, but more so with the public sector than with the private sector. In fact, a number of steps, allowed by the IMF, were taken to relax the credit conditions for the private sector as early as 1961. The ceilings on certain kinds of loans to the private sector were removed, the granting of mortgage credit was resumed; and there were reductions in the reserve requirements of commercial banks. But even granting this, throughout 1960-1961, the credit squeeze seems to have been offset by several factors that support the general structuralist thesis. As it was noted, there was an increase in the velocity of circulation. The liquidity and credit conditions were really influenced by foreign capital movements and by the external payments position. There was also growth of the domestic capital market. The free market for foreign exchange facilitated foreign borrowing. Buenos Aires stock market, despite the political uncertainty, expanded considerably and allowed long-term financing. What is just as important nonbanking financial intermediaries expanded, mainly in the field of

*(From previous page) For a discussion of these factors See Díaz A. (20).

hire purchase. They attracted liquid forms since they were not subject t the 10% interest rate fixed by the Central Bank (by 1961) their influence on the money market was very strong and they controlled at least 10% of the supply of money). * These circumstances may explain the economic recovery but, in orthodox terms, they do not explain stability.

2.- The recovery, nonetheless, was accompanied by a sharp reduction in public borrowing from the Central Bank and a reduction in the budget deficit (Se Table VII). But, from the structural point of view, it is important to s that this was a result of increased tax revenues from foreign trade taxes some tax reforms, and a reduction in subsidies. ** Indeed there was grow in public investment. Moreover, by the end of 1961, the fiscal deficit started to expand once again: higher salaries for the divil services (sa aries which took the initial burden of deflation); nothing was done to r duce the expenditure in the armed forces (they amounted to 40% of current expenditure; and, foreign capital and the rural sector were favoured by tax concessions. In these cimmstances fiscal policies could have contr buted only slightly to price stability, while they probably reinforced th recovery.

3.- A reduction in the inflationary spiral is very likely explained by the fa that, for all practical purposes, the exchange rate was kept practically constant, through the frequent interventions of the Central Bank. It is also true that monetary wages increased very moderately, and that real earnings recovered, and unemployment increased. The level of real wage earnings was in 1961 10% lower than the 1958 figures. (See Table VI).

The structuralist thesis is that the short-term recovery and the twist to wards lower price increases was only caused by the 1959-1961 massive inflow o foreign capital, while orthodox policies were at best neutral. The analyses is thus an exercise on the behaviour of the external sector and its impact on a sick economy:

1.- Recovery in domestic production was considerable, although only 7% above the 1958 level in 1962 (See Table VI again). The result of the inflow of foreign capital was only a moderate recovery in industry. Nonetheless, both public and private consumption increased and the rate of capital for ation was very impressive (55% in terms of the 1959 drop). However, as w

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* For a discussion of these points see again Díaz, Eshay and Thorpe.

** The greater reliance on indirect taxes, says Mr. Diaz, such as the sales ta and import surcharges, plus special tax concessions that benefited high-inc groups appear to have reinforced the regressive distribution of income that followed devaluation.

said, two tendencies are present. First, the most dynamic sectors, were mining and durable manufactures: the recipient sectors of foreign capital. Thus, the recovery was led by petroleum and capital intensive industries producing consumer durables and intermediate and capital goods. Impressive output gains were registered by vehicles and machinery (61%), rubber manufacturing (31%), and electrical machinery and appliances (34%). Second, the production of non-durable goods, mainly for the labour sector, stagnated at a lower level than the 1958 figure. This is a reflection of the regressive distribution of income caused by the orthodox policies enhanced in 1959. While in 1961 the real expenditure on durable consumer goods was more than 20% above 1958, real expenditure on rural products and essentials was 5% below 1958.* The slow recovery of private consumption seems to have been mainly concentrated in durable consumer goods purchased by high-income groups. The output of branches of manufacturing mainly producing wage goods remained at depressed levels, often below 1958 levels.* The concentration of domestic and foreign investment in capital intensive industries explains the continued high unemployment. Over-all, the expansion of aggregate demand was brought about by a recovery in fixed investment, financed by the foreign capital to a great extent, and in consumption, as well as luxury construction.

2.- Structuralists emphasise that such a regressive distribution of income terms itself into inflation. Indeed, as it will be seen below, imports got out of control and reflected luxury consumption. The criticism to the illusory recovery is that the possibilities of creating wage-sector effective demand and the corresponding investment were neglected; while investment was concentrated on both luxury and capital goods industries, without really considering the priority of feasible MST in capital goods. Stable growth could not be expected, since a good part of the domestic market was being reduced; there was a long-run trend reduction in the capacity to import; and some of the foreign exchange available was being squandered on a high propensity to import non-essentials or missallocated in consumer durable industries.

3.- The most disappointing failure took the form of the stagnation of agricultural output. Despite devaluation, price incentives, a shift in the distribution of income towards the rural sector, output continued to stagnate. This affected exports and consumption, although inflation was contained by the depressed situation of the labour sector. What is clear is that the set of orthodox measures failed to reallocate resources towards agriculture so as to guarantee equilibrium in the balance of payments, other things being

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*See Mr. Díaz Alejandro (21).

equal in the context of economic growth. Indeed, a major objective of the Frondizi plan was to produce changes in agriculture! What did become clear, as early as 1960, was that external equilibrium was again precarious.

4.- Again, the 1960-1961 recovery was characterised by a sharp rise in import (25%)on average) which resulted in an immediate deficit on current accoun (See Tables VI and VIII). Exports, on the other hand, after the brief re spite of 1959 declined again. Thus the debt section of the external sect expanded very considerably. Nonetheless, in 1960-61 the deficit on curre account were offset by the massive inflow of foreign capital. In 1960 it took the form of private foreign investment,** and in 1961 when the forei investment boom evaporated, recourse was taken to massive short and mediu term loans. When this turned out to be insufficient there was a loss in gold and foreign exchange reserves. Meanwhile it was clear that domestic capital was leaving the country. What should be stressed is that the for eigh indebtedness measures were equivocal.* Already in 1961 the current count deficit was well above the capital inflow, and exports were on the downfall. The high marginal propensity to import of Argentina was very m in evidence under the freeing conditions. The change in favour of fixed vestment and durable and luxury consumer goods, which reflected the regre sive distribution of income, influenced a similar change in the structure of imports. The contradiction in the external sector policies became a painful fact in 1962.

'The rise in the country's exchange reserves during the first three years of the IMF era, write Eshay and Thorpe, tended to produce the impression of general improvement in the country's external position. This was, however, an illusion; the increase in reserves was primarily accounted by the influx of foreign capital rather than by any fundamental change in the Balance of Payments on current account. Moreover, the reliance on foreign capital, com bined with the establishment of a free exchange market, had introduced a maj element of unstability into the external equilibrium of Argentina' (22). Thu the Frondizi-IMF policies left Afgentina with a huge foreign debt plus the chronic deficit on current account. The negative impact of such policies, n to say their failure, should not be underestimated. In 1962-63, the country

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*The expansion of capital goods was the main factor, although durable consum goods also increased (for a discussion on the structure of imports see Part Chapter 3, section c).

**Investment went mainly into crude petroleum production and refining, the p chemical and chemical industries and metallurgical industries. Public for capital also contributed, mainly to finance infrastructure works (electric An unknown fraction of the private capital inflow was of a short or mediun nature, the substantial outflow of private capital during 1962-63 implies the share of 'hot-funds' was considerable (see Eshay and Thorpe).

plunged into political and economic chaos. The stabilisation policy not only finished President Frondizi and brought in the army, but resulted in renewed inflation, a further dramatic fall in the rate of growth, and external disequilibrium.

The 1962-63 Recession

The recession, according to the structuralist thesis, illustrates two trends. First, it shows further how a country that pursues stability at the expense of growth may finish with neither. Second, it shows how the structural bottlenecks fully result in inflation - prices now increased by 25% on average - and, how the propagating factors of inflation are activated, in this case mainly the devaluation and the chaotic situation of the financial markets, and less so wage increases.

It is important to see that orthodox monetary and fiscal policies contributed to the recession, and did little to stop prices from climbing:

1.- Orthodox monetary and fiscal policies had been compatible with growth during 1960-1 as long as the inflow of foreign capital, both in the form of loans and direct investment, was very large. This was because foreign capital compensated for the domestic monetary restrictions, and allowed for financial recovery. But by the end of 1961, the contraction of foreigh capital inflow, together with the repayment of foreign debt and the flight of domestic and foreign expeculative funds, had a deflationary impact on domestic credit. This happened at a time when the demand for money was increasing as a result of recovery. It would have been possible to offset the restrictive effect of the external sector restoring an expansion in monetary and fiscal policy. The authorities. of course, could not do this owing to their commitments to the IMF. In fact, early in 1962 a new limit on borrowing from the Central Bank was set.

2.- As a consequence of this measures, fiscal policy had to be restrictive and the budget deficit had to be reduced further. Unfortunately this was very difficult since there was a sharp fall in revenues from international trade taxes induced by the liberalisation of the programme. According to official figures, this revenue declined from 41 billion pesos in 1961 to about 35 billion pesos per annum in the following two years. The only way open to the government was to raise prices of public services, further (electricity, railways, bus fares, telephones) and to reduce employment in the public sector. Emergency mtax measures were also taken in the form of income tax surcharges, a capital levy, and sales taxes. Despite all these efforts total government revenues declined in 1962 and only rose in the following year. Besides the fall in international trade taxes, the decline in domestic activity and a pronounced increasedin tax evasion, resulting from the liquidity shortage, had an adverse effect on revenue.

At the same time the 1961-62 rise in prices and wages was responsible for a substantial growth in public expenditure, despite a fall in the volume of public consumption and capital formation (Table VI). In fact, the budget which was reduced in 1960-61 when production was expanding rose substantially in 1962-63 with deflation.

3.- It is important to notice that the fiscal measures - mainly through higher tariffs in public services and higher taxes - induced price increases and higher wages, which renewed the wage-price spiral. Thus inflation, in the midst of contraction, gained momentum.

4.- The government under these circumstances, restored to delaying the cost of servicing the foreign debt of public enterprises; the payment of contractors bills; and even the payment of current wages and pensions. The relation was a worsening of labour-business-government relations and political uncertainty.

5.- To counteract the shortage of liquidity which resulted from the government policy, businessmen resorted increasingly to the issue of commercial paper, the extension of trade credit, and the distribution of dividends in the form of shares rather than cash. Nonetheless, commercial andprivate failures, which were 800 in 1960, rose to 1300 in 1962and over 2500 in 1963. The banks' reserve deficiencies rose from 3 billion pesos at th end of 1961 to 16 billion at the end of 1962, which rendered them liable to the payment of penal rates of interest (30%). The real value of the stock of money fell by about 20% in 1962, as compared with a fall of 5% in GNP expenditure.*

The next step is to see the extent of the damage done to the economy

1.- For structuralists the government's fiscal and monetary policies and the setting created by the IMF, were largely responsible for the fall in the volume of demand and output in 1962-63. There was a fall of nearly 5% per annum in GNP (See Table VI again). The sharpest fall was registered in industry, while agriculture continued to stagnate. The fall in privat consumption was very severe and public consumption stagnated. Aggregate demand was also affected by a sharp decrease in fixed investment. The fa was caused by renewed import restrictions, tight credit and bleak expecta tions. The decline in private consumption (15% by 1963) was caused by un employment, the redistribution of income towards non-wage earners and agr culture resulting from devaluation, the lag on real and monetary wages an the delays in the payments of salaries to the civil service. The conse-

*See Ishag and Thorpe (23).

quence of the recession was also unemployment; widespread under-utilisation of industrial equipment; a sharp fall in the manufacturing of durable consumer goods; a fall in capital goods for agriculture and transport and a further decline in the production of essentials.

2.- There was, moreover, a de facto devaluation in 1962, which accelerated inflation. The orthodox need of accompanying stabilisation with devaluation once again resulted in an inflationary recession.

3.- In the external sector there was an important recovery inexports in 1962, this was the result of good harvests, a fall in domestic consumption and a reduction in cattle population. The decline in demand, on the other hand was reflected in a sharp fall in imports (also inclined by renewed import surcharges during 1962). Thus the balance of payments recovered in 1962, while the balance on current account became possitive in 1963 (See Table VIII). The improvement would have been larger had not the price of meat decreased in 1962. Thus economic recession achieved external equilibrium for only one year. It should be noted however, that despite the improvement on current account, the country faced a severe foreign exchange crisis in 1962. The reason was an outflow of capital which resulted from repayment of foreign debts and the capital flight occasioned by the system and the political uncertainty. The crisis resulted in a further devaluation of the peso from 83 pesos per dollar to 138. The loss of gold and foreign reserves was very severe in 1962. However, the reserve position of Argentina by the end of 1963 had increased to 250 million dollars, some 150 million more than at the beginning of the IMF era. This improvement in reserves was, nonetheless, reduced by the increased liabilities to the IMF from 155 million in 1958 to about 800 million in medium and long-term indebtedness.

4.- Before the climax was reached, president Frondizi had been deposed early in 1962. The opposition group - led mainly by the Peronist Justicialistas - won sweeping gains in the elections. A military revolt took place in late 1962 as a result of a quarrel between different factions in the army, and there was a failed attempt of coup d'état. Finally, elections were held in 1963, after the proscription of the Peronists, and Dr. Illia became president. His government, tried once again non-orthodox measures, but only lasted three years in power. In 1966, General Onganía led a successful take-over and, what seems bewildering, indulged in a classic orthodox thinking supported by the IMF.

'The 'IMF' stabilisation programmes, write Eshag and Thorpe, promised that Argentina could attain internal price stability and balance of payments equilibrium by relying on the operation of price incentives in a free market and by following a restrictive monetary and fiscal policy...

the interplay of market forces would generate a 'sound and durable' rate of growth in income (24'. The results of following these policies durin 1959-63 as we have seen, were the following:

1.- Production fell and stagnated. If allowance is made for increases in population, the per capita level of consumption must have declined by nearly 20%. The growth in fixed investment (which by 1962 declined) was financ by the fall in consumption and the increase in foreign capital. The mineral sector made exceptional progress but this was because of the induce expansion of the petroleum exploitation and the role foreign capital pla ed.

2.- The heaviest penalty for economic stagnation was paid by wage and salary earners, in the form of unemployement, higher prices, and lower earnings. The whole period was plagued by labour unrest.

3.- The index in the cost of living rose about 400% between 1958 and 1963, a higher rate of inflation than in any other comparable previous period.

4.- The domestic losses in production, consumption, and employment did not mitigate the country's balance of payments position. External equilibriu was more precarious at the end of the stabilisation era. There was a de icit in current account, except for 1959 and 1963; when imports decline as a consequence of a fall in activity and import controls. The outflow of capital increased in terms of service and interests of foreign loans, dividends of foreign investment, and speculative private and foreign capi al. But the most important factor was the internal capital position that emerged as a consequence of the programme: the increase in short, mediu and long-run foreign debt.

Mr. Eshag and Miss Thorpe conclude with a note of eirony 'Viewing the abo economic social and political developments impartially, it would not be easy to claim that the IMF policy and efforts in Argentina in the years 1959-1963 were crowned with success'. For our purpose, the case study illustrates the structuralist thesis of the intrinsic failure of orthodox stabilisation programmes in Latin America, with reference to the problem of stability and growth and short-term policy measures. Structuralists' alternatives were discussed in the previous chapter, with the disquieting doubt about the possibility of achieving growth with stability in the short-run.

(2) Chile: The Klein-Saks Mission (1955-1958), preliminars and developments.

This section will attempt to describe the two major stabilisation efforts undertaken in Chile, which followed - although more loosely than in Argentina - orthodox policies. The bibliography on the Chilean case is quite numerous. A systematic introduction into the subject should include at least the works of such Chilean economists as Herrera, Pinto, Escobar and Sunkel, and the articles of foreign authors like Kaldor, Felix, Grunwald, Hirschman and Harberger, the majority of which have already been cited. Special notice should be given to professor Kaldor's Problemas económicos de Chile, Dr. Sunkel's La inflación chilena and Mr. Felix Structural imbalance, social conflict and inflation (25).

Our aim, as with Argentina, is to study those stabilisation measures according to the structuralist thesis. The study is divided into an introductory background (i), the period of Klein-Saks (ii), and the Alessandri-IMF plan and its developments (iii).

However, before going into policy measures, it is useful again to situate Chilean inflation in the context of its long-run and structural causes and propagating factors. Two things should also be clarified. In Chile both causes of inflation have interacted in a rather complex fashion, something which springs from the fact that economic policy has neither leaned on structuralism - like Perón's Argentina - or on monetary orthodoxy - like the IMF-Frondizi plan -. Moreover, it is not simple to make of Chile, as it has been seen, a clear-cut case for structuralist interpretation.

The long-run trends in the structural variables were found to be the following.*

1.- For the 1946-1965 Chile had an agricultural bottleneck reflected in a decline in agricultural and food production per capita. Thus agricultural prices increased more than the overall consumer prices (see chapter 3, section a).

2.- The foreign exchange bottleneck is not severe for the period as a whole. It is true, however, that exports and imports were unstable suffering frequent short-term setbacks as a consequence of trends in the copper market. Nonetheless, there was growth in exports and faster growth in imports. There was growth in the capacity to import and increasing recourse to foreign capital. Although foreign indebtedness expanded as a consequence, Chile has had a net inflow of capital however meager it may have become by the mid-1960's (see section b).

3.- Intensive import substitution industrialisation, unlike the other countries does not appear to be present. The import coefficient fell only very

*Their relevance ought to be seen with reference to interregional comparisons.

slightly; industry as a percentage of GNP has not increased; and not much visible import substitution was seen in the import structure. If intense industrialisation is taken as one of the inflationary features of the structuralist model, the fact is only relative present in Chile. It may be argued, on the other hand, that the 'lack of industrialisation' was reflected in the poor performance of the rate of growth (see section c).

4.- Public expenditure, revenues, investment, and budget deficits have increased in Chile. A good part of the expenditure and the deficit financing was spent in infrastructure and social services (see section d).

5.- Very incomplete statistics were found on the distribution of income. Between income groups, however, it may be said that the redistribution of income tended to be regressive up to 1956, while afterwards it took a progressive turn (see section e).

With respect to the monetarist-propagating causes of inflation the following tendencies were obtained:

1.- The supply of money and quasi-money has indeed expanded very fastly, and the liquidity of the financial system has been considerable. No correlation, however, was found between these variables and prices. As with Argentina the rate of increase in the money supply may be made to contract in some years, and still price increases (see Chapter II, section a

2.- Budget deficits as such are inversely correlated to prices: the larger they were the slower the pace of inflation. That is, the reverse of the monetarist position (see section b).

3.- Industrial wages are significantly correlated to price increases, but with a year lag. In these circumstances wages probably played 'a lagged' role on the inflationary spiral (see section c).

4.- As with all the countries taken, there was a close relationship between devaluation of the exchange rate and consumer prices (see section b).

5.- What is peculiar to Chile is that the ratio of money to income has increased although savings have been poor. Moreover, there has been an increase in the real value of monetary holdings, although the holding of public debt has declined. Thus inflation does not seem to have affected savings in a negative fashion. Moreover, no correlation could be found between the inflow of foreign savings and the increasing inflation. Inflation, on the other hand, may have induced distortions in the investment process (inventory formation increased and construction was expansive) (See section d).

It may be thus gathered that the natured of Chilean inflation is rather intricate: both structural and propagating factors seem to be at work in a way that the 'origins' of inflation are obscured. Moreover, unlike Argentina

- or Mexico, for the matter, which is the opposite - the structuralist thesis has to be applied with great care considering the trend in foreign exchange, public investment and a weak industrialisation. It is hoped that a look into the effects of short-term policies will help to clarify one's position.

This 'mixed' nature of inflation* in Chile has been quantitatively studied over the 1950's by professor Harberger (26). The author, like Mr. Díaz, uses aggregative regression analysis of the rate or price change in Chile in terms of monetary and structural factors:

1.- Pt, change in consumer price index from year (t-1) to year (t)
2.- At, change in price level during year (t-1) minus change in price level during year (t-2) - the acceleration factor.
3.- Mt, change in money supply from year (t-1) to year (t).
4.- Mt-1, change in money supply from year (t-2) to year (t-1).
5.- Wt, change in minimum wage for public employees from the first quarter of year (t-1) to the first quarter of year (t).
6.- Yt, change in real income from the fourth quarter of year (t-1) to the fourth quarter of year (t).

He presents his results in three equations with adequate 'fits'. The first is purely monetary, allowing for a two-year lag. The others add the variables At and Wt, with marked improvement in the fit.

Pt= -1.05 - 1.05 yt + 0.80 mt + 0.34 Mt - 1 (R^2=0.84)

Pt= -0.32 - 0.91 yt + 0.74 Mt + 0.34 Mt - 1 + 0.20 At (R^2=0.87)

Pt= -1.15 - 0.89 yt + 0.70 Mt + 0.29 Mt - 1 + 0.16At+0.15W (R^2=0.87)

'The constant terms(indicating what would happen to the price level if real income, money, etc. remained unchanged) are not significantly different from zero. The coefficients in the change of income indicate that a 1% rise in real income, other things equal, causes close to a 1% fall in the price level. The coefficients of both current and lagged changes in money are significant when added and indicate that a 1% increase in the supply of money causes a rise of 1% in the price level, other things being equal. When the acceleration of prices (At) is added, is only significant at a 5% level. When, however, the change in wages is also added, the coefficient (At) loses significance. While Wt itself adds nothing to the explanation of the rate of inflation.' While Hargerger's results support the demand explanation of inflation, write BronfenBrunner and Holzman, they do not attempt refutation of the structuralist claim... that is to say, they treat Yt as independent of the two monetary variables Mt and Mt-1 which begs one of the questions at issue in the controversy'. The wage coefficient is presumably not significant because wage adjustments in Chile follow changes in the cost of living in the previous year, as we shall see. Moreover, the main limitation is that the inflationary nature

*See footnote on next page.

of exchange rate devaluation, both in supply and in liquidity, and thus of the behaviour of the external sector were not included. Devaluation, as in Argentina, plays a leading role in propagating Chilean inflation. Professor Harberger himself reached later this conclusion in his following article (27), which has been discussed (see Part II, Chapter 2). So, in conclusion, this only tells one that the nature of inflation was again presumably mixed. Let us then, as proposed, approach the subject in terms of economic measures.

(i) A background discussion.

'Chile's very severe depression of the 1930's and the influence of the war years, says professor Grunwald, brought a very erratic pattern of price movements during those two decades ' (28). The annual rate of price increase, on average, was 10%during the 1930's and 20% during the 1940's (see part I, Chapter 1). The inflation rate increased during the early 1950's and by 1953 reached a price explosion which brought prices up to 80% in 1955. With the 1955-57 stabilisation programme inflation was reduced to 26% in 1958. But prices increased by 39% in 1959. With the new stabilisation programme in 1959-1960 prices were reduced to an all time minimum of 8% in 1961. However, despite the programme, prices continued to climb up to 44% in 1963 and 46% in 1964. On the whole, it may be claimed, that Chilean inflation has been as violent and as erratic as that of Argentina over the post-war period.

The Chilean economy is usually selected to illustrate how inflation may become 'a way of life' and an 'institution' within the system:

1.- Wages and salaries, pensions, social security benefits have followed legalised cost-of-living adjustments.

2.- There have been persistent periods of price controls and subsidised incomes.

3.- The profit earners, as a matter of fact, have increased prices regularly in advance of expected cost rises.

4.- The credit system, generalising, has been permissive and used to cover price increases and income adjustments.

5.- Deficit spending has become unavoidable as government revenues were based on the previous period's assessments compared to current pricing for government expenditure.

6.- Devaluation, despite exchange rate controls, has been chronic.

Within this permanent inflationary setting, the growth per capita of the economy has been rather poor (1.4%) Nonetheless, as with the other semi-industrialised Latin-American countries, two periods should be distinguished. Throughout the war years and up to 1952, when the export markets for Chile were more buoyant, GNP rose on average by 5% per annum. From 1963, when the exter

*(From previous page) Latin American inflations tend to be, of course, mixed cost-push demand-pull inflations.

setbacks began, output only rose by 0.3% annually up to 1956. Because of population growth, which has increased at a rate of 2.3% per annum, the per capital income of 1959 was below the 1953 level. However, if the period from 1953 to 1964 is chosen - because there was an external recovery in the early 1960's, mostly as a consequence of foreign loans - the average annual rate of growth of GNP is slightly higher (3.1%), and leaves per capita income only above the zero mark. The Chilean economy recovered during 1965. Unfortunately this was followed again by a recession in 1966.

Although there is no intention to discuss Chile's economic stagnation, it is useful for the understanding of structuralist thesis to describe superficially what were the economic characteristics before Klein-Saks arrived late in 1955.* This merely means making a statement about the propagating factor of inflation, the distribution of income, the industrial and agricultural trends, and the external sector.

1.- Before 1953 when GNP was growing (5.1% on average between 1950- 1953), there were sharp increases in government expenditure. This was reflected in the expansion of bank credit on government accounts (44%)in 1950, 59% in 1951, and 44% in 1952). Private credit expansion, while less, was also substantial (20, 29 and 39% respectively). This was reflected on a high rate of consumption, for the private (5.3%) and the public sector (12.1%). Moreover, there were wage increases. Although it is probable that consumption of lower income groups did fall because of the adverse effects of inflation on the distribution of income. 'The official cost-of-living adjustments of manual workers wages since 1953 have not kept up with the index of consumer prices.** Since increases in prices were above these figures, it is concluded that the increase in the supply of money was accompanied by a higher liquidity, while the income circulation velocity decreased.

2.- On the whole (although in some years there are exceptions) it has been difficult to blame Chilean inflation on the wage sector. The distribution of income was rather regressive and wages adjusted to prices with a lag. While this has reduced effective demand, it does not seem to have led to large savings and investment in the private sector. On the contrary, the propensity to consume of the upper income groups appears to be high. The structure of production from 1945 to 1955 shows a decline in the share of agricultural production from 17 to 15%; a raise in the share of industry from 15 to 19% and a considerable increase in the share of personal services and trade (from 43% in 1940 to 57% in 1955). Three fourths of the 60% in GNP between 1950-55 took the form of services. Since demand for services constitutes a more important component of the expenditure of upper income groups, it is clear that the distribution of income must have moved accordingly, and in

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*For a structuralist discussion on 1945-1955 see Dr. Sunkel, op. cit.

**See professor Grunwald (89).

fact it did become more regressive (see section e). It is also clear that there is a lower limit to the level of real consumption of the poorer sections; and when, as in 1953, external factors tended to bring about a fal in total real income, steps have to be taken to prevent an absolute fall i standards. Thus, when prices rose further in 1953 and 1954 as a result of devaluation, the compensation of wages was adjusted.* Real wages which ha improved before 1953, however, fell sharply after that year.

3.- Two other factors that affected inflation during the pre-1955 period were agricultural and industrial output (see table I). 'The outstanding impres sion is a relatively slow growth of agricultural production, writes profes sor Grunwald, which has barely been able to keep up with the population in crease. Chile not only was self-sufficient in Agriculture some twenty yea ago (1939) but in some products even had an export surplus. Yet now the country is spending close to one fifth of its import budget on foodstuffs' (31). The agricultural bottleneck, however, is not present for the brief and inflationary period of 1950-53 (output grew on average at 5.4 per annu This was only a brief respite since before 1950 it was stagnant and later declined 0.4% per annum. Industry, on the other hand, had been expanding at a fast rate (27% in 1951 and 12% in 1952). This leads one to believe that a costly MST process was going on. Fixed investment was growing, but relatively slow in capital goods and buoyant in building. It should be no that investment in Chile is inclined to hedge against inflation in luxury constructions, something that has reduced industrial growth and its poten- tial inflationary role.** [illegible], On any event, after the external crises of 1953, fixed investment in capit goods increased at 9%, although industry as such only grew at 2.4%

4.- The factor that structuralism most emphasises to explain the Chilean infla tion that exploded in 1955 (and the fall in the rate of growth) is the be- haviour of the external sector (Table I). In summary, an important factor in restraining inflation before 1953 had been the rise in imports (50% be- tween 1950 and 1952) together with an increased in the capacity to import, produced by large exports and improving terms of trade. With the external crisis in 1953, as we shall see below, the situation changed. The capacit to import fell, while government expenditure rose. Rising costs and wages were met by credit creation and prices reached their all time high in 1955 (80%). The immediate cause of increasing inflation, was the particularly severe devaluation of 1955: the exchange rate moved from 128 escudos pe dollar to 220 in the free market= while the official rate was devalued fr 31 escudos to 110.

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*See professor Maynard (30).

**Resources tended to flow, says Prof. Maynard, into speculation in real e and luxury type residential building: in 1953 the latter absorbed more t 45% of fixed investment. (32).

ECLA puts in the following words: as a consequence of the expansive effects of the Korean war on export markets, export earnings rose by 38% in 1951 and by 27% in 1952, while industrial output rose by 45% between 1950 and 1955. After 1953 these trends were reversed and growth slowed down (in per capita terms it was negative between 1953-1956) and there was a deterioration in the fiscal and foreign exchange situation. Although export earnings were 21% lower in 1955, the corresponding decrease in imports was only 8%. Government revenue fell by 3%, while expenditure rose by 2.4% (in 1952 the corresponding coefficients were 24% and 14% in positive terms) (33).

In Latin America the Chilean case is usually used to support the thesis of of how external disequilibrium introduces into the domestic economy price instability or stagnation, or both. This happens via the supply of imports and public revenues.* The problem of achieving price stability with a sustained rate of growth is complicated by the fact thatthe economy is very dependent on one commodity - copper - for both its supply of foreign exchange and its public revenue. In fact, copper exports account for more than 50% of total exports and make the most significant part of the capacity to import. Moreover, public revenue is dependent on a rather complex exchange rate system. (See below).

'It is true, writes professor Maynard, that inflation in Chile accelerated after a break in copper prices in 1958, in the same way that Argentina's difficulties were made worse by external factors in 1948-49... the expansion of Chile's gross product ceased in 1955, and per capita income fell in the following years: and this development provides yet a further illustration that anti-inflationary measures cannot work without having serious adverse effects on growth, unless the basid causes of inflation are removed at the same time' (34). Let us then follow the line of thought that leads to the auther's conclusion.

From 1947 to 1952 the Chilean economy expanded under the influence of a substantial rise in the dollar value of its exports and in its capacity to imports. The government was thus able by the increase in its revenue to expand expenditure. From 1947 to 1952, indeed, real public expenditure rose by more than 40%. Imports rose at a very fast rate which, despite the improvement in export receipts, prove excessive. Pressure on the balance of payments was met by continual exchange rate devaluation. This sort of depreciation was obviously very inflationary and contributed to the formation of a wage-price spiral. Wages perhaps kept pace with prices; which suggests that the distribution of income must have shifted considerably in favour of the upper income groups. The fact that such a redistribution change did not affect the rate of

*The last point has been amply discussed by the ECLA literature and for the period that concerns us, by the cited work of professor Maynard. (overleaf)

inflation - prices rose about 200% in this period - is a reflection of the high propensity to consume of the upper income groups. Hence capital formation did not benefit as it would presumably would have: instead the structure of production began to reflect the consumption demand pattern associated with income inequality, something which added to inflationary pressure (See Tables II and III).

An abrupt fall in copper prices in 1953 and the consequential fall in export receipts, far from producing deflationary effects on the domestic level of income set up forces which accelerated the rate of inflation (the Prebisch argument). In Chile this was exacerbated because of the heavy dependence of public finances on copper sales and the exchange rates which were used to subsidise imports, particularly consumer goods. Subsequent fiscal and credit policies accentuated these forces.

How did the exchange rate policy play such an important part?* The government obtained its revenue by means of a 30% (later raised to 60%) direct tax on copper income. In addition to other custom taxes and special taxes and surtaxes, there was also an 'implicit' tax on the production costs of the industry, arising out of the difference between the rate of exchange at which the government sold pesos to the copper companies in order to enable them to cover their expenditure in Chile and the rate at which the government sold the dollars so obtained from the companies to importers. Taxes on the copper companies amounted to a well over 50% of their gross value added, and contributed between a quarter and a third of all government revenue. Moreover, the exchange rate system and its associated implicit tax on production costs operated to give a substantial subsidy to imports between 1950 and 1953 the subsidy as a proportion of import prices amounted to over a third on average, and to over 40% on imported consumer goods. Capital goods were less favoured, the subsidy running at the rate of about 25%. The element of import price subsidy arises because the official exchange rate is overvalued, more so for offical sales than for official purchases of domestic currency.

Now, if export sales of the copper companies fall, the implicit tax and the exchange rate income are reduced and import subsidies have to be cut. If public revenue falls, and current expenditure is fixes, then a budget deficit is created or increased. If sufficient foreign exchange reserves exist (which is not the case of Chile because of the trade balance) then imports can be maintained and the budget deficit can be covered by the sale of dollars taxed out of the copper companies. If reserves are inadquate, then importers must be made to buy less dollars and to pay more dollars for them.

*(from previous page)
In relation to other Latin American countries, however, the thesis may be put to question.
*See ECLA and S. Undurraga (35).

Rationing of dollars solves the first problem but not the second. A solution to both problems is only found in devaluation, which is inflationary.*

In 1955 a fall in copper sales produced a 26% fall in copper revenue from copper, and a 10% fall in total government receipts. The exchange rate was devalued sharply, by more than 80%, thereby reducing import subsidies, but even so the budget deficit rose to 20% of total expenditure. This of course, was somehow inflationary, but more important was devaluation and the reduction in the subsidy of import prices: the cost of living rose 70%. Consumer goods, being the most subsidised, rose the most in prices, and consequently adjustments were made in wages. It was at this point, when exchange rate devaluations had been continuous when budget deficits kept increasing, because of falling revenues and increasing expenditure, when nominal wage adjustments were constant; and, when prices had increased by 270% between 1952 and 1955, that the Klein-Saks Mission was called.

(ii) The Klein-Saks Mission (1955-1958) (56)

The price explosion of 1954-55 alarmed very much public opinion and the administration of President Ibáñez so that the need for price stabilisation was publicly stated.** The priority of price stability over the rate of growth of the economy - something which at the time was not fashionable in the rest of the semi-industrialised countries of the region - was established. Economic policy statements, however, did not make explicit the laissez-faire overtones of the later Argentinian programmes, although implicitly the intentions were orthodox.

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*The policy of devaluation, reduced taxes to the copper companies, and maintained public expenditure, however, may be self defeating. Assume, that the government sells pesos cheaply to the companies after the devaluation induced by the fall in copper exports; imports have to be reduced; and it is impossible to reduce the deficit. Devaluation would work if exports increased, and thus revenue too. This is entirely unlikely in Chile because her income and price elasticity for exports are not the same, and even if they were, they may be the wrong ones. Moreover, in the Chilean case it is unlikely that imports can be reduced if the level of employment is to be maintained. For the policy to work devaluation would have to be accompanied by import controls, plus an investment policy. This would be inflationary, but so is the other case. With the difference that a devaluation followed by protectionist investment policy would, with time, check inflation and isolate relatively the public sector from the external sector fluctuations.

**For a discussion on the subject, which emphasises a political interpretation of inflation, see professor Hirschman, op. cit.

TABLE I

Chile: GNP and its Major Components, Annual rates of Growth
(1950-1964)

	1950-53	1953-56	1956-59	1959-62	1962-64	1953-64	1965
GNP	5.1	0.3	4.2	5.4	2.4	3.1	5.5
Total Investment	9.4	-2.1	-4.2	19.4	3.5	3.8	10.1
Fixed	6.3	2.2	-1.3	20.0	4.9	6.4	10.4
Equipment	3.7	9.0	-2.2	16.4	10.8	8.1	26.2
Building	9.6	-6.5	0.3	27.0	-3.0	4.2	13.2
Total consumption	6.2	0.2	4.5	4.8	2.4	3.0	5.5
Public	12.1	1.1	2.5	9.6	-2.4	2.5	4.1
Private	5.5	0.2	4.8	4.1	3.1	3.0	5.7
Agriculture	5.4	-0.8	0.3	-2.4	2.1	-0.4	-1.0
Mining	1.8	-6.5	18.2	1.9	2.8	3.8	0.0
Industry	5.8	2.4	3.0	2.0	3.7	2.7	5.4
Biulding	9.0	-2.2	2.1	20.0	-7.0	3.9	-
Energy	5.8	5.8	5.6	9.2	6.0	5.5	5.8
Transport	3.8	5.8	1.8	7.8	6.4	5.3	-
Exports	-8.8	9.0		6.1	2.3	6.2	4.9
Imports	4.1	3.7		14.1	3.3	5.9	0.4

Source: Economic Survey of Latin America, 1965 and 1967, UN, N.Y.

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Exports	84	104	130	95	112	134	134	111	100	124	132	122	133	135	162	188
Imports	60	85	91	84	82	93	97	105	100	100	125	147	141	135	146	146

Source: Estimates from Yearbook of International Trade Statistics, UN, N.Y. 1966.

TABLE II

Chile: Changes in Prices and GNP, 1955-*965
(percentages)

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Consumer Index	80	38	29	26	39	12	8	14	44	46	28
GNP	2.0	0.9	4.9	2.9	0	7.2	3.0	7.0	2.4	4.1	5.5
GNP per capita	-0.6	-1.6	2. 1	0.5	-2.6	4.7	0.5	4.4	0.2	1.7	3.1

Source: Idem

Chile: Annual Changes in Monetary Indicators
1950 - 1965

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Velocity of money in circulation a)	2.6	2.7	-	2.7	2.7	3.4	3.5	4.0	3.5	3.0	2.7	2.9	2.6	2.8	3.0	2.7
Average rate of interest a)	11.0	12.0	12.1	12.5	13.4	13.8	14.0	14.7	15.9	16.4	16.7	15.3	14.2	14.4	15.1	15.9
Bond issue (in millions of 1964 escudos)	54.9	46.1	53.1	42.1	21.1	15.0	9.3	27.9	7.6	7.2	7.4	12.8	9.9	3.9	1.5	-
Stock exchange trans. (millions of 1964 escudos)	117.8	258.8	278.7	149.3	213.0	377.5	152.3	114.3	105.9	110.1	66.9	56.1	71.0	106.8	100.0	91.3

Source: Boletines mensuales, Banco Central, a) second half of the year.

Chile: Annual changes in Real Earnings and Monetary wages
1950- 1965

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Minimum legal salary 1964 es.	218	218	252	201	171	156	166	187	167	172	-	198	163	143	150	161

TABLE XII

Chile: Some External Sector Indicators, 1951-65

nd Imports of Goods illions of dollars)		The Balance of Payments (millions of dollars)			Devaluation of the Rate of Exchange (Escudos and Peso per dollar)		
xports	Imports	Current Ac.	Capital Ac.	Balance (deficit +)	Year	Official Rate	Free Rate
419.7	372.8	0.7	+5.7[a]	-	1952	31.1	125.3
455.3	462.4	-22 .8	-19.5[a]	-	1953	110.2	220.
457.8	426.2	-24 .7	+41.9	-17.2	1956	547	600
464.2	553.0	-140. 8	+96.7	+44.1	1957	690	775
447.2	614.4	-245. 8	+110.7	+134.9	1958	993	1120
488.8	549.2	-142. 4	+71.5	+ 70.9	1959	1053	-
498.5	540.0	-128. 4	+98.9	+29.5	1962	1.64	2.42
525.0	560.0	-137. 9	+77.0[a]	-	1963	2.15	3.04
645.9	556.1	-39. 5	+85.7[a]	-	1964	2.70	3.26
					1965	3.47	4.22

Esonomic Survey of Latin America 1965 and 1967, UN, N.Y. Source: IFS, IMF

a) Net flow of external financing

Chile: External Terms of Trade, 1950-1964
(1958 = 100)

50	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
09	128	141	113	100	107	123	122	118	118	119

ource: Boletín Estadístico de América Latina, N.Y.,UN, 1964, 5.

TABLE IV

Chile: Fiscal Expenditure and Revenue, 1958-1965

(thousands of 1 9 6 0 escudos)

Year	Revenue	Expenditure	Public Investment % of Expenditure
1958		691	18.4
1959	707	785	22.2
1960	707	903	22.8
1961	759	945	21.8
1962	789	1038	25.6
1963	1009	998	25.3
1964	997	1039	25.1
1965	1259	1252	

Source: Economic Survey of Latin America, 1965-6

'The recommendations of the Klein-Saks Mission, a United States private consulting firm which was employed in the second half of 1955, writes professor Grunwald, to everybody's great surprise, won relatively wide political support (37)'. Private and public opinion had come to believe, mainly as a consequence of the experience during the previous three years, that without monetary stability the structure of the economy could not be changed (not that there was a development policy during President Ibáñez' government, or professor Hirschman notes). What were then the reasons for this movement towards economic orthodoxy that created a setting for the programme?

1.- There was support from the wage sector. ECLA writes that wage earners were discontent with the effects of inflation on their real income. In fact, the minimum wage for workers in the private sector, which represents the group, with more coherence, actually fell in real terms in 1953-55 (see table II).

2.- The second favourable circumstance for Klein-Saks was the behaviour of the external trade sector. Trade conditions suddenly changed for the better in 1955, mainly because of the improvement in copper sales. (See Table III). Export earnings rose from 361 million dollars in 1954 to 441 in 1955 and 433 in 1956, while the corresponding import rises were moderate (from 400 to 405 and 440 million). Thus Chile could rely to a certain extent in its export earnings to achieve external and domestic equilibrium, while Argentina was forced into a foreign indebtedness pattern that proved fatal.

3.- A factor that acted against the programme was the fact that the external recovery was short-lived. In 1957 and 1958 export earnings fell noticeably. Imports, on the other hand, continued to increase until 1957. This represented a burden to the balance of payments which was reflected in small but continous devaluation from the initial one in 1956 to the one in 1958. In effect, the free exchange rate moved from 600 escudos to 1120 escudos per dollar in 1958.*

4.- The main criticism of the programme, from the structuralist point of view, was, of course, that it was ill-conceived. The programme was implicitly based on the supposition of flexibility in the productive and financial systems with respect to deflationary orthodox measures, and how from such measures it would reallocate factors and monetary relationships. As we shall see, hopes never materialised because, according to structural thought, attention was not given to the structural imbalances of the system.

Thus early in 1956 the government introduced Klein-Saks 'gradual anti-inflation programme'. This ought to be taken as the classic example of the cautious approach towards Latin-American inflation, the Argentinian being the opposite. According to official statements, the policy excluded the drastic action entailed by a sudden restriction of the liquidity by means of a monetary reform. In practice, although the measures were not shockers,

*The rate was revalued however to 1.055 pesos in 1959 with unified rate system.

monetary restriction was indeed introduced (see Table II again). Still, this was considered politically impracticable in the initial phase of the plan. The aim was 'gradual deflation', based on the progressive moderation of the pressures that led to monetary expansion. The immediate objective was the reduction of aggregate demand by eliminating the main causes of that had led to an expansion of the means of payments. What were then the policy tools of the programme? They included monetary, fiscal, wage, price and foreign sector measures. The main objective, of course, was to reduce the rate of inflation by half in 1956 and again in 1957 and achieve virtual stabilisation in 1958-9.

1.- Professor Grunwald rightly states that credit restrains were instituted (despite other claims.) 'To control the monetary system, writes ECLA, use was made of instruments that are clearly described in the report of the Klein-Saks mission' (38). The purpose of the plan, in fact, was the reduction in the expansion of the supply of money, something which together with legalised wage control, would reduce costs and prices. There was also the intention to strike a decisive blow at the speculative abuses of credit that characterised 1955. The specific measures were a reduction on credit expansion quotas; a substantial increase in the central bank's rediscount rates; the introduction of a gradual rediscount rate that would penalise banks making excessive use of rediscounts in relation to their own capital and reserves; limiting the establishment of new banks; reducing the Central Bank's own loans to the public; and strengthening the existing selective credit controls. It should be clarified, however, that although these measures were implemented, they were not followed perfectly.

2.- Explicit emphasis was placed on reducing the monetary expansion originating in the public sector through the budget deficits. A clear objetive was the transformation of the methods of financing the government deficit. 'Whereas in earlier years the bulk of the funds for this purpose was provided by a direct issue made by the Central Bank, writes ECLA, from 1956 these contributions were provided by foreign loans, reduction of reserves and obligations in foreign currency, which entailed the sale of foreign currency to importers and an increase in the flow of goods and services from abroad' (39). Fiscally, the measures were a reduction in expenditure and a rise in incomes; both left much to be desired and, as we shall see, were contradictory.

3.- The keystone to the programme was wage control. A limit to wage adjustment was agreed in Congress, although after only a majority of one vote. Professor Grunwald gives the following figure: adjustments in wages and salaries

were to increase only 45% in the face of a 90% increase in the cost-of-living (40). It was hoped thereby to reduce or relax the overall pressure on supply and on public and private expenditure which, to a greater or lesser degree, were transferred to the monetary system. The objective was only achieved in 1956, later to give way to higher wage increases. Nonetheless, the measures were deflationary. In 1957 the wage increase was 80% of the price increase, but in 1958 it was 100%. The divorce between the two increases had the effect of reducing wages and salaries. 'In real terms (1950 prices) the minimum wage fell by 15%, writes ECLA, and the pay of government employees by 41%, between 1955 and 1958; apart from any other effect, this had a restrictive effect on effective demand' (41). From the structuralist point of view the wiseness of the measure may be put into question. According to professor Maynard the wage control caused the distribution of income to move yet further away from the low income groups, and in consequence the demand for industrial consumer goods declined...The need to bring about a regressive shift in income distribution in order to check inflation, even then with only partial success, throws considerable light on the causes of Chile's economic difficulties. It should be considered in conjunction with two other facts: first, that the distribution of income was already very unequal before the 1956 stabilisation measures, and second, that despite the considerable income inequality the level of private investment, in relation to national product, was very low. In other words, it seems doubtful that the shift of income could be explained by expected favourable effects on savings, since the propensity to save of the upper income groups was very low' (42).

4.- Other complementary measures were envisaged in terms of freeing the system; namely the reduction of price controls and those of foreign trade. It was expected, as in the Argentinian experiments, that price signals and market forces would bring the productive and financial systems into stability. The measures taken in this area were the replacing of the multiple exchange rate system and import licences, which had become very difficult to operate. The exchange rate was reduced to two, one for trade in goods and the other for capital transactions and tourism. In 1955 the average rate represented only 45% of parity, but this percentage rose to 56 in 1957, and 84 in 1958. The adjustments were, of course, inflationary. In addition the system of detailed administrative permits was replaced by the system of prior import deposits. On the other hand, the relaxation of the price controls went hand in hand with the reduction of subsidies. Here, however, the measures were not related to the short-run problems of stabilisation, but were based on the assumption that a freer operation of the market forces would encourage a better allocation of resources.

Perhaps these two factors help to explain the persistence of inflation, i.e 'open inflation'.

The next question to ask is what were the results of the stabilisation programme:

1.- With respect to wage control, as we have said, the measures were not comple ly effective, but they succeded in introducing a wage lag into the inflatio ary spiral. The fact that real earnings were greatly reduced (in terms of 1953) very likely had a deflationary effect on demand which contributed to the reduction of prices in 1957-58. Although they probably helped to reduc fixed investment, i. e. in the consumer industries.

2.- Whereas the means of payments increased by 65% in 1955 their annual varia- tions fell to 43% in 1956, 29% in 1957, and 32% in 1958. But, what was als important, the amount of government botrowing from the Central Bank was grc ly reduced. 'It is always possible to say that the expansion of the supply of money, writes professor Grunwald, permitted price increases during this period, but in the absence of any serious demand pressure, this is not a ve useful statemtnt (between 1956 and 1958 the money supply increased at an av age rate of 33% while consumer prices increased at 34% on average' (43) Ecl supports this idea, although it remains somewhat eclectic. 'In brief, the monetary instruments used in Chile played a subsidiary role even in their o field of action... a greater influence was exerted by decision and facters lating to other areas (foreign trade policy) more vital to the course of ev It is clear that the effect of measures used in the field of foreign trade felt beyond the area of foreign trade and the balance of payments, and they were in fact key elements in the fiscal and monetary operations undertaken in general in the process of stabilisation' (44).

3.- Both ECLA and professor Grunwald seem to agree that any success of Klein-Sa with price stability, however doubtful, was due to some aspects of the exte sectors. Foreign loans, but more so the temporary 1955-56 rise in exports possible an increase in imports and the postponementoof a foreign exchange crisis.

4.- With respect to fiscal policy, public expenditure was only reduced inasmuch as salaries were kept down. Transfer payments, which were regarded as an i portant potential source of the reduction of public expenditure, remained stagnant during 1956 but increased sharply in 1957 and 1958. The same occu red with public investment. In both cases there was a conflict of aims. A though the attempt to balance the budget was a major policy issue, it was seen that a reduction of subsidies was a threat to price stability and that a reduction of government investment would've aggravated the stagnation of the economy. In this dilemma - never acknowledged by the IMF - the immedia

consequences carried more weight than the orthodox measure of balancing the budget. The use of instruments to improve revenue collection also failed to effect any significant change. Government current revenue did no more than maintain the real level attained in 1955, mainly due to the increase in income from the external sector and increases in sales tax. The balance of expenditure not covered by current incon expressed as a percentage of total expenditure, fell in 1956 to 12.8 but then rose to 15.2 in 1957 and 17.3 in 1958. However, these figures conceal a key point of the stabilisation plan: the transformation of the methods of financing the government deficit. As it was said before, borrowing from the Central Bank was reduced from 1956 and financing came from obligations in foreign currency, reduction in reserves, and some foreign loans. The Institute of Economics of the University of Chile states that in this period the policy on debt financing was aimed more at restoring the balance of payments than at financing the government deficit in national currency, although the two aims were clearly related.

5.- Before going ahead, it should be pointed out that the price stabilisation results of the Klein-Saks mission - however dubious the implementation of orthodox measures seems - were rather illusory. The rate of inflation was reduced to 34% on average during 1956-1958, but by 1959 it had again increased to 39%. Moreover, the temporary respite - if 34% inflation may be called that - was mainly due by the recovery in exports and the inflow of foreign capital. What structuralists point out, of course, is that these reductions in the rate of inflation were obtained at the cost of domestic economic growth. 'Although development was not one of the main aims of the programme, writes ECLA, it was not assumed that the pursuit of financial stability should be at the expense of the pace of economic activity or the standard of living. On the contrary, it was held that the containing of the price rises...would open the way for improved conditions in all areas' (45). Economic growth was, however, negatively affected.

6.- Although the average rate of growth for 1956-1959 was 4.2%, high for Chilean standards, it does not reveal the impact of stabilisation in output (see Table I). In the same period total fixed investment declined by 4.2% on average and capital goods by 2.2% on average. Moreover, agriculture remained stagnant, while industry grew on average at a rate of 3%. The fact that the rate of growth was higher is reflected on the mining sector (13.2% rate of growth) and in the expansion of copper exports. On the other hand, the measures were successful in creating a desired decline in building, mainly private; which, however, was responsible for difficulties in other industries, services, and increased unemployment. 'This decline, writes ECLA,

had its origin in the exclusion of building activities from the system of bank credits, and could have been avoided by a corresponding expansion of public investment in construction, but such a course of action was ruled out by the increase in the government deficit' (45). Professor Grunwald s says that the loss of purchasing power - through the wage and credit restraints, and the change in public financing - reduced aggregate demand. Producers found themselves squeezed between loss of sales and tight money. Industries that could not reduce costs to maintain production, found themselves wither bankrupt or operating below capacity. On the basis of a broa survey, the manufacturing industry was found to operate at an average of 47 of capacity in 1957. Significantly unemployment ensued. The University of Chile measured unemployment at 7% of the labour force at the end of 1956, a level from which Chile did not recover until 1961 (47). ECLA says that the effects of the policy had the further result of reducing the real income of the working population, and increasing registered unemployment, mai ly among the manual workers, which reached its peak in 1958, when 9.5% of the labour force of Greater Santiago was unemployed. The rate of per capit growth declined in 1956 and 1959, it was stagnant in 1958, but did increase in 1957 (See Table II).

7.- The Klein-Saks Mission, as it was said, obtained some results in stabilisin prices. But, instead of virtual stabilisation by 1959, prices increased 40 While this represents some improvement considering th1 1953-55 experience, i cannot be considered a success considering its short-lived results, the red tion of consumption in the wages' sector, unemployment and the reduced leve of activity. ECLA puts it in the following words: 'In summing up the results of this first integrated programme with the central aim of stabilisation (gradual) it can be concluded that it succeeded in halting the progres sive spiral of prices, without fully controlling it... Furthermore, the social and economic cost of the programme, although it was not overwhelming, was very high, in its total impact, for the most defenceless sectors of the urban labour force, and for certain production activities, especially those linked with construction and manufactures goods for mass consumption: the high cost helped to keep down the pace of development' (48).

What are the reasons for the failure, both in achieving price stabilit and growth in output?

1.- The most important reason, for professor Grunwald, seems to have been the sharp drop in the copper price in 1957. While the price of copper rose sharply up to the first half of 1956, thus undoubtedly aiding the programme the drop that followed was considerably greater than the previous gain. As a consequence a substantial government deficit emerged, while domestic acti vity geared towards the domestic market slackened even more.

2.- The stagnation in economic activity and unemployment brought pressure to ease credit and wage restraints, so that prices rose again sharply in 1959. For ECLA the lack of success of the programme is a reflection of the unsteady political support for the government of president Ibáñez and of the direct effect on the level of economic activity and employment. By the side of these two major factors others that have been mentioned, and which in most cases arise out of the first two, face into rising significance. The vacillations or reversals in the fiscal and monetary measures, for example, can only be understood in the content of the above two factors (49). For professor Cranwald the following is important: 'The board of directors of Chile's Central Bank, dominated by private banking interests, which often neglected the public interest in favour of their own, was not keen on enforcing effective credit restraints' (50). It is interesting, for example, that the average bank rate of interest could only be raised from 14% in 1956 to 15.9% in 1958, which was hardly sufficient to have an effect on the demand of credit, in view of the price rise.

3.- Klein-Saks insisted on a fiscal reform which was not implemented.

4.- As it was said, from the beginning of the programme there was inadequate financial support. It was felt that sufficient resources could not be obtained, from the IMF, and that the IBRD maintained itself completely alloof from Chile's need.*

5.- For our purpose the exercise shows the failure of soft stabilisation programmes, that nonetheless sacrifice the rate of growth. Judging from the recovery in the external sector and the growth of the public expenditure, for the structuralist model to operate inflation should have been milder. The opposite points out to deficient policy making in the field of public investment. The agricultural bottleneck, however, was much at work as the high prices for food indicate. Perhaps the main contradiction lay in devaluation and high import prices.

Still, early in 1959 it is probable that Chilean authorities thought that, apart from foreign loans, failure lay in the gradual and contradictory fiscal and monetary measures. At least, this is what is reflected in the forecoming stabilisation programme.

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*Judging from Argentina and from the later events in Chile herself, it is hard to understand how foreign loans could detain inflation on account of the capacity to import.

(iii) The Alessandri Stabilisation Plan (1959-1962) and developments.

The administration of president Alessandri, which came to power late in 1958, proposed to carry on its own stabilisation programme; this time with closer supervision from the IMF. The economic policy followed throug out this period, however, is particularly complex if one tries to analyse i either in 'classical orthodox terms' or with'classical structuralist though One can claim that economic policy from 1959 to early 1962, in so far as ac demic propositions, is a compromise policy between orthodox measures - that did, inot turn out to be very orthodox - and unorthodox measures - which ca not really be called structuralist-. The alessandri plan, if one may call so, was orthodox in principle in the following policy tools: monetary rest wage control, liberalisation of prices and foreign trade, and massive relai on foreign credits. 'In some important ways, writes ECLA, action proceeded along the lines laid down in the previous period: stability was still the central aim' (51). On the other hand, the policy followed was unorthodox i these respects: there was a fixed frozen or overvalued rate of exchange; t reliance on imports was massive; public investment increased sharply; and economic recovery was hinted as an overall objective. ECLA explains ho the new administration, for political reasons in its first year at office a to win labour sector support, had to suggest the need for economic expansio Moreover, these were the days of the Alliance for Progress and the Charter Punta del Este. Since all negotiations for External credit and aid were la ly guided by those precepts, the concern for development as the means of pr moting it assumed importance. The intention went as far as including the t year development plan which had been drawn up sometime during the Ibáñez Pr sidency and which had remained stored away. This plan, duly brought up to date, was supposed to serve from 1960 as a general fguide for public invest- ment and as evidence for the foreign development agencies of the intention t follow the Charter of Punta del Este. Today almost everyone would agree, however, that president Alessandri was a conservative - mainly interested i liberalisation - who, nonetheless, talked about fiscal and agrarian reforms and public investment; public investment which he indeed increased very co siderably.

The hypothesis this st dy wants to propose - as a simple means of unde standing the economic policy of 1959-62 - is that policy in 1959 started on general terms with emphasis on orthodoxy and moved away from it towards un- orthodox measures, which nonetheless, can be branded as structural to a very limited extent. It is useful to advance that this 'compromise' economic pol icy led to the 1961-62 crisis; a crisis reflected in a severe external dis- equilibrium, a renewal of the price spiral, and a low rate of growth.

As in the previous sections, the exposition will look into the objectives and the results of the Alessandri Plan in terms of monetary policy, wage control, fiscal measures, external sector policy and liberalisation aims.

Before going into this - and at the risk of being of repetitive - it might be useful to describe the 'initial mood' of the stabilisation programme according to ECLA.

1.- Simplistically the objectives were: stabilisation, a revival of growth and liberalisation.

2.- As regards stabilisation, the principle was to prevent aggregate demand from growing through a severe control of the monetary system. But, in addition, these was to be supplemented on the supply side by recourse to imports (this proved to be overwhelmingly true).

3.- Some major intermediate objectives were formulated to speed growth. Emphasis was laid on expanding exports and obtaining foreign credits (which were also true - See Table III); although accent shifted specifically to an increase in public and private investment, which would have to be based on larger imports.

4.- As far as liberalisation it was to be pursued in foreign trade (except for the rate of exchange), prices, and wages (which was true only in 1959, wages were controlled later). A decisive role was again placed on the expansion of imports as a requisite for reducing or abolishing controls on external transactions, but also for regulating price increases and income trends.

5.- The compatibility of the objectives was rationalised in these words: 'inasmuch as the stability objectives were reinforced by concern for supply, a visible link was established with the intention of reviving production activity: and both targets were assumed to be garded by the greater flexibility or fluidity of the system which would stem from the intention to liberalise.

6.- A highly favourable factor that started with and accompanied the policy were the trends in the external sector (See Table II and III). Imports - which are, of course, relatively outside the bonds of economic policy - expanded with relative and abnormal stability and improvement in the terms of trade. Imports expanded partly due to external credit and can be considered a by-product of economic policy.

7.- It should be stressed that the academical compatibility between stability, growth and the contradictory liberalisation was to rely almost completely on the inflow of imports and foreign capital. This over the long-run proves to be a short-lived possibility.

What was then the behaviour of policy measures and to what sense did they achieve their objectives.

1.- The monetary system's liquidity depended-even to a greater extent than the previous period- on foreign assets and import deposits, which permitted the expansion of the means of payment and of the credit to the public and privat sectors without pushing prices up. On the surface the monetary policy appea expansionary. However, from the domestic assets and measures point of view it was not so. (The rate of growth in money plus quasi-money wasagain below 1955-58). 'Credit restraints, writes professor Grunwald, were tightened, finally reaching the point of eliminating completely the rediscount privileg of the private banks. Marginal reserve, requirements were also raised shar ly on peso and dollar deposits (52).' Also, interest rates and incentives f long-term deposits were raised. The Institute of Economics of the Universit of Chile says that in order to reduce the inflationary effect of primary is- sues by the Central Bank, requirements for marginal cash hold rose in 19 to 87.5%. The rise in the interest rate was not high (from 15. in 1958 to 16.7% in 1960); but it was accompanied by a slackening in price increases, so that the real cost of money was higher. The higher interest rates on sav ings deposits and on authorised foreign exchange deposits resulted in a sub- stantial increase in the share of quasi-money to the total means of payment, which was about 60% in 1961, as against 26% on average during 1957-58. (53). The result of these measures was that monetary trends differed from price trends. While the total means of payments rose by 44 and 11%, and internal bank credit by 30 and 33%, during 1960 and 1961, consumer prices for the sam period only rose 12 and 8% (a virtual stabilisation for Chile). It is impor ant to note that the velocity of circulation fell! This situation, accordi to professor Grunwald has to be considered as one of monetary restraint. 'A yet, he writes, by mid-1960 the banking system was liquid and it looked as i of all things, bank loans might go begging. By the monetarists this was in- terpreted as a victory; by the structuralists it was seen as a demonstratio of a weak demand and a lazy economy' (54). For practical purposes, price in creases were reduced remarkably during 1960-1961.

2.- With respect to a wage incomes policy, although superficially it appeared con tradictory, their rationab is not difficult to interpret. During 1958 and 19 liberalisation was much in the minds of authorities and for political reaso wages were allowed to increase in unison with the cost-of living indes. The new government also attempted a level of wage differentials giving higher w adjustments to the lowest paid workers. Both things, for monetarists, could have been iflationary. However, early in 1960 the policy changed.* In effe

*It should be noted that no official publications did publish wage figures 1960.

during 1960, wage and salary adjustments were left virtually to individual and collective bargains. Thus the average wage increase was 17% as compared to the consumer price increase of 38% in the previous year.* But by the end of the year, the authorities dicided to put an end to such a liberalisation and tried to keep wage increases at a maximum of 10%. Later in 1961 wage increases were reduced by legislation to 15%. The existence of this wage lag is taken by monetarists as cause in the sharp reversal of price increases. For structuralists it played an insignificant role. Whilst this course was being fllowed (1959-1961) salaries and wages improved in real terms with respect to the previous period (1955-1958), though they failed to return to the 1950 level. The average salary earned by government employees (in 1950 pesos) fell from 10 escudos in 1955 to 5.9 in 1958, recovering in 1961 to 6.8 escudos. The minimum salary, which had reached its peak in 1952-4 at 4 escudos, fell to 3 in 1958-9 and rose to 3.10 escudos in 1961. ECLA's conclusion is that salary and wage trends were evidently not the most important factor in the policy followed during the period, either as a means of curbing inflation or of propagating it' (56). As for as prices are concerned, the check came from expanding imports, reducing import controls and maintaining a fixed rate of exchange as we shall see.

What should not be underestimated, according to both ECLA and Grunwald, is vigerous 'moral' campaign that the government carried out during 1960-61 to reduce consumer price increases. Consumer committees were established to induce voluntary control (in prices) in entrepreneurs and surprisingly they had some effect. Although the experience was short-lived, during the first two years of its existence the central body of those committees played a not unimportant part as the spokesman of the consumers in defending their claims and petitions before public opinion and the political authorites.

3.- From the fiscal angle, the programme set out to increase tax revenue and to alter the structure of expenditure. The objects of this were to eventually reduce the need for foreign loans and to increase public investment. Progress was made in both respects, although here growth had priority over stabilisation and still prices fell! (The reason, of course, lies in the behaviour of the externla sector that made this possible). Tax revenue was increased in absolute terms and as a percentage of GNP; it was less than 12% on average during 1956 and 1958 and over 14% during 1960-63.* The same applied to capital expenditure (See Table IV). It went up by over 30% in real terms in 1959-61 with respect to the previous three years. Its share in total expenditure rose from 18% to over 22% between the same periods.

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*This data is based on estimates from the Institute of Economics (55). See also Table II.

But, in spite the increase in revenues, fiscal borrowing did not dimin on the contrary, the deficit in current income with respect to total expend ture increased, so that public investment was financed almost entirely by c ital inflows, consisting mainly of foreign currency liabilities. The surpl on current account covered less than 5% of public investment in 1960 and 19 Moreover, 85% of the inflows of capital represented foreign currency commit- ments. The reasons for the steady increase in the fiscal deficit were not d ferent from those of the previous period. While public investment was being increased, the priority objective of containing prices had the same effect o transfer payments, above all the part destined to subsidise public and priva enterprises (transfer payments to railways alone rose 50%). The same thing happened under the head of financial payments, as a result of heavier borrow ing. Thus budgetary policy could hardly be considered stabilising from an o thodox angle, although, from the domestic financial angle, its potential in- flationary impact was transferred to the financing through the balance of pay ments.

4.- The heart of the Alessandri Plan, as well as its results, lie in the foreign sector measures that were adopted and the small but steady growth in exports and terms of trade relationship. The liberalisation of foreign trade -excep for the rate of exchange- was enforced and large foreign loans were contract Unifying, fixing and overvaluing the rate of exchange - something which has nothing to do with liberalism - proved crucial in obtaining virtual price stability (although both stabilisation indices were only temporary). From 1 to 1961 the rate of exchange remained fixed at 1055 escudos per dollar, whil consumer prices increased 12% in 1960, 8% in 1961 and 14% in 1962; somethin quite unusual in Chile. On the other hand, local banks were permitted to ac cept dollar deposits at a high rate of interest (8%) and the government issu dollar notes and bonds of high yield. These measures were designated to re- patriate private capital.*

ECLA's interpretation of the programme places a somewhat different em- phasis (57). They write that the crucial element of the whole policy was, namely, external borrowing. The expansion of imports stands out as the inter mediate objective of all basic targets. But it was only feasible on the sca demanded by economic policy if recourse was had to external credit. That is how the instrument (which was to be the pivot of the whole model) came into being. The main influence of the external contribution was its immediate effect on the supply of imports, which increased above the real export earn- ings thus reducing the disequilibrium between GNP and expenditure, which oth

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*In this new regime the banking system was committed to extend dollar loans which were then used as monetary substitutes and increased the supply of money.

wise have resulted in an increase in prices. The monetary system, by receiving foreign exchange and selling it to importers, accrued means of payment which financed a considerable part of the public budget and also of private sector's demand for money, thus cushioning the expansionist effect of such measures. The following Table shows how far the net trade balance bridged the gap between GNP and expenditure in 1958-62.

Chile: GNP and Gross Expenditure, and net Trade Balance
(Millions of 1961 escudos)

	1958	1959	1960	1961	1962
GNP	4919	4920	5194	5425	5706
G Expenditure	4969	4877	5300	5622	5786
Net Exports or imports (-)	-50	43	-106	-197	-80

Source: ECLA, op. cit. (pag. 318).

It is no wonder then that -again in the short-term - per capita growth was fast and inflation very mild!

If a policy based on these mechanics is to operate, the volume of external financing must be considerable, as in practice it was. The external debt (in the Table below) almost trebled in an exceptionally brief period. The A warning, however, was raised by the minister of finance in 1964: 'the total commitments contracted by Chile as at December 1963 represented an outflow of about 335 million dollars in 1964. To appreciate the full magnitude of this amount it should be borne in mind that Chile's total exports during the present year will be below 600 million dollars; hence, considerably more than half its export earnings will have to be earmarked for servicing commitments.'

Chile: Estimate of the Foreign Currency Debt
(millions of dollars)

	1958	1960	1963
Public sector	388.9	494.0	1,126.3.
Private sector	180.1	379.3	550.8
Total	569.0	803.3	1,677.1

Returning to the theoretically devalued exchange rate in 1959,* as it was it was fixed at 1051 escudos from 1959-61. The move was obviously done to preserve stability. This amounted to holding prices down in a part of supply which is vital because of the proportion of basic consumer goods (See section c), which, moreover, was now increasing faster than the total supply of goods and services, as shown by the evolution of the import coefficient: 9.3% of GNP in 1958, 9.6% in 1959, 12.8% in 1960 and 14.0% in 1961.**

(Footnotes * and ** on following page)

What is more, the decision implied a drop in the relative prices of imports (they rose by 16.8 in 1959 and by 1.2% in 1960, while domestic prices went up by 38 and 8.7%). The measure, moreover, dit not seem to affect negatively the export sector, as monetarists would have it. Chile's traditional exports were now finding a market, despite the overvalued currency, because o high productivity in mining, the improvement in the terms of trade, and som facilities given to secondary products. Neither did overpricing appear to a threat on the import side, since demand could be satisfied with the ample support of external credit. This approach, of course, had to lead to the f ther liberalisation of the import system. To that end, prohibitions on wha were regarded as non-essential items - luxury goods or those prejudicial to national interests - were abolished; import deposit rates were reduced and in some cases replaced by additional custom charges.

In any case, the combination of these factors - relatively high,-thoug not increasing, export earnings; a fixed rate of exchange; import facilit and sustained imports; and ample foreign borrowing - created a decidedly ex plosive situation which came to a crisis in 1961 (see Table III). The defic on current account multiplied tenfold between 1959 and 1961, from 24.7 to 2 millions. Furthermore, the balance on capital account, which was sufficient in 1959 to offset the deficit, was completely inadequate in 1960-61 in spite of its absolute growth. The 1961 balance-of-payments deficit was 135 millio dollars which resulted in the depletion of the supply of foreign exchange an the suspension of exchange operations.

A surprising thing was that although purchases of imported capital good rose in absolute terms, their share of the total decreased as compared with the previous period. Their average was 157 million in 1956-59 and 189 millions in 1959-61, but as they represented an average 37% of the total in the first period they only represented 35% in the second. The behaviour of raw materials and fuels was similar (see section c). On the other hand, consume goods increased faster both in relative and absolute terms: from an average of 140 million they passed to 158 and from 29% they came to represent 32%. Clearly the abundance of foreign exchange and the liberal policy were not safeguarding the future rate of growth and the external equilibrium. This state of affairs which led to the 1961 crisis put an end to price stability by the end of 1962.

(From the previous page)

* The average exchange dropped from 84.2% of the theoretical parity in 1958 to only 80.7 in 1959 (see Table III).

** The fact, on the other hand may point out to a weak IST process and hence to the instability of the system: where imports were to fall, income woul too.

The economy was stagnant during 1959, but this can hardly be blamed on the Alessandri Plan, considering that it was its first year of administration and that the economy had been rather stagnant during the previous years (See Table I). Moreover, the rate of growth recovered in 1960 and 1962, although it was slack in 1961. Indeed over 1959-1962 the average rate of growth was considerably high (5.4%) for chilean standard. On average the rate of gross fixed investment moved at 19.4% per annum - this was mainly a result of the boom in building (27%) - which public consumption increased at 9.6% annually. Fixed investment in capital goods, although slower, achieved a high rate of growth (16.4%). This is explained considering the inflow of foreign capital and the availability of imports, by professor Grunwald in the following terms: high labour costs made labour-saving investment more attractive; output per man-hour increased, and efficiency was also forced upon the domestic production through the competition of foreign goods (59). In relative terms, private consumption grew very slowly, presumably as a result of the wage-lag and the reduction in real earnings. Consumption of high-income groups, on the other hand, is reflected in the relative and absolute increase of consumer-durable imports.

Summarising, the relative high rate of growth was reflected in the expansion of the public sector, construction, and the external sector. The building industry achieved an alltime rate of growth of 20% per annum. Public investment was mainly a consequence of the growth of energy (9.2% per annum) and transport (7.8% per annum). Exports, for the same period, grew moderately at 6.1% on average. Imports, on the other hand, achieved a surprising rate of increase of 14.1% per annum. But, the fact that the domestic sector was deflationary is seen in the following percentages: agriculture decreased at an annual rate of -2.4%, while industry and mining only grew at 2%, that is, a rate lower than increases in population.

Before trying to evaluate the results of the second stabilisation programme, it is useful to see what its immediate consequences were:*

1.- The crisis in the external accounts, which became obvious at the end of 1961, was responsible for the abrupt change in economic policy during 1962. The first reversal occurred in December 1961: foreign trade operations were suspended and the dual exchange rate was established. Official devaluation followed in 1962, when the official rate was devalued by more than 50% and the free market rate escalated to more than a100%. The official rate, however, could not be held at this figure and from 1961 to 1963 was, in fact, also devalued by at least 100%, while thefree rate followed accordingly. The consumer price index responded immediately - aby 1963-4 prices were up 44 and 46% respectively - and it was clear that stabilisation had failed once more.

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*In other words, the reversal in liberalism of the Alessandri policies.

2.- Economic policy on the whole became defensive. Together with devaluation, liberalisation of foreign trade was reversed: controls were reinstated on imports, less essential items were again banned; special taxes were impose and the prior import deposit was escalated. These measures succeeded in im proving relatively the balance of payments, at least as compared with the critical position of 1961. (See Table VI). The deficit on current account was reduced progressively from 1962 to 1965. And, the aggregate deficit fell from 135 million dollars in 1961 to 29 million in 1965. This evolutio was caused by the significant drop in imports (1962-1965) and a continuing inflow of public foreign loans. The net balance for public foreign capital increased progressively from 48 millions in 1961 to 208 million dollars in 1964. As we have said, however, the amazing recourse to foreign loans has left the balance ofpayments - namely through the service and amortisation - in a very weak position that, in effect, verges on chronic external disequi librium from 1961 to 1966.

3.- In fiscal matters, tendencies were maintained somewhat neutral. Current in come increased slightly in 1963-64, while current expenditure remained stab (see Table IV). Surprisingly enough publicinvestment was allowed to expand considerably. ECLA writes that with exception of monetary policy, which co timued to follow the established pattern, it was necessary to adopt a new a proach to price and wage controls and intervention (59). In fact, the auth rities attempted to introduce price controls and to fix wages and salaries; and real wages declined. ECLA, from different sources, comments the outcom of 1961 in the following words: 'At the beginning of 1963 wages were incre ed by less than the preceeding rise in the cost of living, but pressure was too strong to permit a continuation of this policy. Credit restrictions we re-imposed, but these were offset to a considerably extent by a rise in the velocity of circulation(?).. it must be taken into account that bank lendin to the private sector is already at a very low level in Chile' (60).

4.- GNP growth performed poorly at an annual rate of 2.4% from 1962 to 1964; th is, slightly below the rate of population growth. Moreover, the rate is in flated by the performance of 1962, when the rate of growth was relatively high (7%) because of the availability of imports and the fact that controls in the foreign sector were not introduced until the end of the year. Total investment did increase at a rate of 3.5% per annum, but only because publi investment continued to expand. Energy and Transport grew respectively on average at 6.0% and 6.4%. Total consumption was stagnant and agriculture, mining and industry were slack, specially considering their poor rates of growth during 1959-1962.

5.- Late in 1964 the new administration of president Frei - considered an interventionist as compared with president Alessandri, but to the right of the defeated socialist candidate Dr. Allende - took office. It was said the new administration would give preference to structural changes that would gradually achieve lasting growth and stability (61). That is, a structural change in priorities. Although we do not propose to go into the matter here, it is interesting to note that public investment has continued to expand. ECLA claims nonetheless, that in 1965 the basic problems and imbalances of the economy, say in 1958, still persisted. Social pressures had increased; the productive system had made no further headway; the inflationary gap had widened; and, public expenditure and imports were still dependent upon an increased volume of foreign loans. The outstanding role during 1965 continued to be played by the fiscal sector in production and social services, and by external credit as an expedient for securing these aims without aggravating inflationary tensions (63).*

Let us then return to our intention of summarising the results of the stabilisation programme, according to structuralist thought:

1.- With respect to price stability, after the fast rate of inflation in 1959, the policy was able to reduce price increases to virtual Chilean stability from 1960 to some time during the last quarter of 1962. But, from 1962 onwards, inflation gathered strength and became almost as rapid as before 1955 (See Table II). Thus, in the last analysis, both the 1955-1958 and the 1959-1961 programmes failed to remedy inflation.

2.- The relationship between the evolution in prices and the behaviour of the external sector, as well as the policies followed in this sector, is the core of the matter. As it has been seen the 1961 foreign exchange crisis and the subsequent devaluation in 1962 restored the inflationary spiral to its traditional dimensions. 'Other factors or pressures, writes ECLA, originating in the wage sector or in the monetary and fiscal fields, seem to have played a lesser part, as the relative price stability in that year (1961) clearly indicates (64)'.

a) The situation is a classical one where external disequilibrium coincides with price instability. The point to stress, however, is that in this case (unlike with, say, Argentinian or Brazilian inflationary outbursts) the immediate cause was not a sustained fall in exports and its consequent chain reaction in the domestic economy, beginning with fiscal income. The decline in exports, as we have seen, was insignificant and, on any event, it was offset by an increasing flow of foreign loans.

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*It is important to note that the economy recovered again in 1965, and that price increases fell (See Table I, II and III). In structuralist terms, (over

b) Disequilibria should be attributed to the monumental increase in imports, for exceeding the capacity to import despite the increase in loans. This led to the sharp devaluations of 1962-3.

c) In principle, the responsibility for the crisis and for inflation may be placed on having kept the exchange rate overvalued from 1960 to 1962 and on a totally inadequate liberalisation of import policy. However, one should be careful here because it was after all, devaluation itself which renewed the inflationary spiral. 'It should be remembered, writes ECLA, that the resulting overpricing of the escudo was no greater than in previous years or periods for the obvious reason that prices climbed very little. During the first half of the fifties, for instance, the gap between the average exchange rate and the theoretical parity was much wider than in 1961 (it had been 54% of parity, while in 1961 it was 69%)...The more recent crisis should therefore be associated with another factor, that of import liberalisation. It was the conjuction of this factor with the fixed exchange rate that really destroyed the stability of the balance of payments' (65). But, this amounts to saying that either way - before or after the 1962 devaluation - the policy followed was making price stabilit incompatible with external equilibrium. The former, inavoidably, was sacrificed for the latter.

d) The reasons why the authorities followed this dangerous policy and, in fact, allowed the external accounts to deteriorate to a completely untenal point, are probably rather complex. Superficially it may be said that the were caught by their 'compromise' policy: trying to achieve price stabili ty and external equilibrium overemphasising the role of imports and foreig credits, while failing to undertake structural changes in domestic activities and exporting, despite the advances in fiscal policy. One can understand that if authorities had defended the balance of payments before 196 - by devaluation - this would have destroyed the stabilisation intentions from the beginning leading to higher wages and costs which could only be met by further deflation in the monetary and fiscal fields. This would happen in an economy which was already badly deflated as a consequence of the previous stabilisation programme. On the other hand, if precautions had been taken to defend the balance of payments from the beginning - i.e. 1959 - this would have implied lower imports and less short-run foreign loans in a year when the economy was stagnant and inflationary. Clearly, a devaluation in 1959, together with the deflationary situation, would

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*(from previous page)..one may insist that this is merely a recovery caus by the short-term growth in exports, imports and foreign capital and that long-run imbalances are quite present. The policies of President Frei hav tended to be rather unorthodox, but whether they have led Chile out of he chronic inflation and stagnation is still not clear (1964&1968).

have made the political situation close to unbearable. There seems to have been an unrealistic reliance on foreign loans and imports per se, without the built up defenses in the domestic economy.
That is, there was no policy to diversify exports, reduce imports or enhance industrialisation.

c) ECLA takes the view that responsibility of the failure lies in the groups (both of entrepreneurs and workers) that defended the overvaluation of the exchange rate, while other defended the liberalisation of imports. ' A formidable combination of forces had united to thwart every effort made to postpone the balance of payments crisis as, indeed, they succeeded in doing. Although, in the past, opposition to devaluation had always been concentrated with the broad masses of consumers because devaluation had a particularly severe effect on the price of imported consumer goods in Chile, it now had become more extensive. Hence, it is not surprising that the process was allowed to continue until it had reached a point in which neither reserves nor credits were able to make the system workable any longer (1961). But, even though stricter measures had been taken,* the operation of the plan would have had to depend in any case on external credit whenever export income failed to increase sufficiently or if in agriculture and industry lacked the vigour to bring about a greater autonomous expansion on the part of the production system and thus reduce the propensity to import or at least pave the way for its control.** In default of these conditions, it is understandable that, in view of the increasing service and amortisation payments on the external debt, the continuity of the programme should have been subordinated to the need of enlarging the flow of foreign capital. If the possibility of obtaining a steady and increasing flow of external credit is deemed to have been unlikely, the plan, as conceived and developed, had little chance of lasting and the misguided decisions taken with respect to the exchange rate and import facilities that provoked the 1961 crisis merely precipitated the collapse. This again implies that the plan as conceived, made price stability incompatible with external equilibrium.

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*Which would have been inflationary.

**We shall return briefly to this point of structural changes. But, as stated here by ECLA, it appears to indicate that failure lies partially in the inadequate response of the domestic sector. But, how could domestic production - deflated from the monetary and real income aspects, as it was - be expected to revive when the size of the market had been deliberately reduced; when ISI industrialisation was weak; when outlets for traditional exports were slack and there was no export diversification; when agriculture, left to itself, was on the decline?

3.- Among the surprising factors of the period, was the fact that fixed investment grew very favourably. Its major component (fixed capital) accounted for nearly 15% of GNP in 1961-62, having normally been below 9% in 1957-58. As we saw, investment in capital goods increased rapidly (16.4%) and building activities boomed (27%). Although imports of capital goods did not add to their share of the total, their value rose sharply from 151 million dollars in 1957 to 237 million in 1959-61. Much of this investment and construction was carried out by the public sector.

4.- Indded - from the structuralist angle- the public contribution to the investment process was promising. This was greater both in volume and proportion than in previous years (See Table IV). ECLA writes that there was a startling recovery and progress in public housing and infrastructural works, transport and electric energy.

Housing Units Built by the Public Sector

	1953-1958	1959-1963
Number	26,070	84,460
Square metres	1,691,000	4,692,000

Investment in Public Works and Capital Goods in Transport

	1954-1958	1959-1963	% Variati
Roads and airports	124.5	267.6	115
Ports	10.7	24.1	125
Railways	40.9	209.2	411

Installed electric energy capacity increased by 32.5% in 1958-62 agai 14.8% in the previous five years. It may be possible, however, that publi expenditure was not geared sufficiently to production activities.

5.- These remarkable developments were of course, reflected in the high rate o growth of GNP for the period, 5.4% on average. When looking at yearly fig ures, as we have said, GNP trends according to the above source do not rev a clear cut expansion, as indicated by the fluctuations on the product and the fact that the highest rates generally follow upon a recession, in othe words, they represent a recovery rather than an actual advance.

6.- What appears puzzling from the structuralist angle is that Chile's capacit to import, unlike with other inflationary countries of the region*, was ri and favourable during this period. That is, the economy counted with a re

*Peru may also be considered an exception in this sense, although inflation wa milder. Mexico fits the structuralist thesis better because the capacity to import, however supplemented by foreign credits, expanded pari passu with pric stability.

actively plentiful and stable supply of imports. In a strict sense, the fact that it was financed in a good measure by foreign credits does not make it any less so. It could be argued, however, that in theory the expansion of imports through additional borrowing cannot be compared with the expansion through the growth of exports. In the second case, the multiplier effect on the domestic economy is very probably greater than if the increment in imports were derived from foreign loans. In fact, in the last analysis, this is where the structuralist argument leads to in terms of the diversification of exports and the MMIC. Still, given the capacity to import during this period, the Chilean case does not fit very well the main element of the structuralist thesis: the lower the capacity to import the higher the inflation, other things being equal. Arguing that there was in fact almost price stability from 1960 to 1962 is not very convincing because it was a short-lived stability. Arguing that the capacity to import was accompanied by income growth and hence inflation, is not too convincing either. Because income growth was slow. For the structuralist model really to apply, specially considering the long run growth in CH, either income growth should have been faster or inflation milder.

7.- What is very important from the structuralist angle is that, with stabilisation, the activities directly connected with the production of goods, with agriculture and manufacturing, developed at a very slow rate (See Table I). The fact that both public and private construction was booming may explain the rate of growth; but, on the other hand, construction absorbed much of the investment in non-production activities. This may amount to saying that foreign loans and imports were wasted and enhanced the domestic bottlenecks that then led to further inflation. Special attention should be given to the decline in agricultural production, which for economical and institutional reasons, appears to be one of the weaker points of the Chilean economy. Industry developed at a faster rate, but again this is more a recovery of the deflation left by the first stabilisation programme than an expansion. The structuralist proposition - that against the policy of stabilisation in practice - would amount to achieving a rate of growth with the allocation of the productive resources in these two complementary ways: one intended to increase and diversify export activities and the other to continue or to reactivate ISI in respect to both agriculture and industry, in the light of economic, technological and financial conditions, as well as their export potential. The fact is that the resources for this purpose were available in the form of the previous industrialisation process (which included intermediate and capital good producing industries), and in the form of an expanding capacity to import. It should have been hoped that under these circumstances, productivity could have been increased. Needless to say, this would

have required expanding the domestic market and employment, potential exte al markets, Latin-American cooperation and an expansive policy (something t was not really encouraged by the Alessandri plan). Judging by the failure of the orthodox policies, this arguments appear to present a better, altho theoretical, solution to inflation.

8.- As regards exports they grew mildly and were outstripped by the rapid grow of imports. But, for structuralists, what is important is that the tradit al structure was maintained: copper still accounted for almost 80% of the total value throughout 1959-63. Industrial and agricultural exports, on t other hand, remained much the same: industrial goods exported were worth 28 million dollars in 1960 and 30 million in 1963, agricultural goods were 31 and 32 millions, respectively.

9.- With respect to ISI, in another place the structuralist argument of how industrialisation in inflationary Latin American countries became the source of growth was discussed. The Chilean case during the period 1958-63 illustrates how the process can reverse itself. The data available suggests that a kind of structural recession has taken place, since industry has become less important as a whole. (See section c). Manufacturing industry fell from 23.5% of total GDP in 1954-55 to 18.1% in 1962-63. This also applies to employment. In 1940 the labour force employed in manufacturing was 18% of the total; in 1952 it was 19% and, in 1960, 17%. There was even a greater loss of ground by the agricultural sector, which in Chile i important in terms of ISI and some export development.

10.- In view of these facts, it is probable that the investment during this period improved infrastructure and housing, but did not establish the conditions that would have stimulated industrialisation and agricultural progress. Resuming, the fact that export promotion and industrialisation wer not given an important role may explain why stabilisation was not achieved Only structural changes could have provided the basis on which external cr dit should be used. If not external borrowing becomes a self-defeating pr cess, which on any event can only be temporary.

11.- Thus, in Chile, one returns to the initial structuralist thesis. The two main issues on which economic policy rests seem to be closely connected or even interdependent. However wise and selective theeffort to achieve stab lity may be, it can hardly hope for success unless it is based on changing the economic structure in the context of a favourable external sector, the would allow for a faster rate of growth and a lesser vulnerability to exte nal factors. Under these conditions,-growth in industry, agriculture and public investment, together with an expanding capacity to import - growth and stability may be attainable. Although, it is unlikely that price stability will be achieved over the short-run.

Over the whole period of 1945-1963, one is left with the doubt of how well Chile can be made a case for structuralism. The alternative point is that inflation has been chronic, together with an expanding capacity to import. Allowances have to be made, of course, for frequent and sometimes severe falls in exports, which through the fiscal system have endangered public finance. But even so, the long-run trend resulted in a considerable expansion both of GI and total imports, plus a net inflow of foreign capital (this is particularly relevant in comparison with the other inflationary countries of Latin America, the structuralist model is one based on the relative comparison of the region). Arguing that inflation is explained by the fact that income was growing beyond that the fluctuating capacity to import could contribute to stability is not convincing. Again, the performance of output was too poor to account for fast inflation and growing foreign exchange. For the structuralist model to really operate either inflation should have been milder or growth faster.*

It could be argued that the capacity to import - i.e. imports and foreign exchange - was wasted in the domestic economy. But this amounts to admitting that the foreign exchange bottleneck was relatively unimportant in explaining inflation. Still, it is quite true that the agricultural bottleneck was much at work and led to higherfood prices. The import food bill was burdensome and little headway - because of institutional reasons - was made towards MST. It may also be probable that public expenditure was concentrated on public building and social services and not on productive public investment. These two 'structural factors' in domestic policy may account for inflation. Moreover, structuralists are going to argue that MST industrialisation was very weak and hence the rate of growth poor and high the vulnerability of the economy in terms of the fluctuations in the external sector. But, other things being equal, inflation should have been weaker! After all, structuralism argues that one of the causes of inflation is intensive MST industrialisation not present in Chile. These factors point out that structural inflation was caused within the domestic economy, especially if the role of wage inflation is convincingly minimised and monetary policy is regarded as neutral. It is relevant to note that President Frei's policy has turned towards these issues: land reform, productive public investment and the diversification of exports, as well as the nationalisation of the copper mines.

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*Insisting, the idea is derived from the experience of the other inflationary countries of the region.

(4) The Peruvian - IMF Stabilisation Programmes (1958-1959)

The Peruvian case, for the purposes of this chapter, will be again treated as another variant of the structuralist thesis. This is, however, a controversial issue. During 1957-1959 Peru suffered a rather severe balance of payments crisis, which was accompanied by two devaluations and a considerable increase in the mild but persistent inflationary rate. Late in 1957 the IMF stepped in, with it s customary package of orthodox policies, and guided the Peruvian economic policies untial the end of 1959. And, what is very interesting, from 1960 onwards the economy recovered remarkable in terms of its rate of growth, and the balance of payments; although prices continued to increase mildly. Thus it was claimed, in the aftermath and there onwards, that the IMF's stabilisation programmes (there were actually three orthodox drives) had been a success.* Our object is to try to see what was the role of these programmes in achieving price stability - something which as will be seen is obviously very questionable as prices have continued to increase throughout athe 1960's - and in achieving external equilibrium and a sharp recovery in output growth - something which superficially is less questionable -. The second parallel objective is to try to interpret these policies, as with the previous two sections, following structuralism.

The behaviour of the external sector in Peru deviates somewhat from the general trends of the rest of the selected countries. During the immediate post-war period, Peru, unlike the other countries, was relatively inflationary for its own standards, while its export sector was relatively stagnant (67). By 1950, and more so with the Korean boom, its external sector started to expand rapidly and continued to do so at least until 1956. The experience was different in the main inflationary countries of the region. Their post-war export boom was earlier and more short-lived: in Argentina it was over by 1949, in Chile recovery lasted only until 1953; in Mexico there was an external crisis in 1954, and Brazilian and Colombian export expansions were over with the coffee crisis. But, what is more important, the external crisis in Peru only lasted for two years (1957-1958). It was during this period that the IMF, with a year lag, 1958-59, recommended its policies. By 1959, Peruvian exports started to increase and, for the region's standards, have done very well ever since (except for a small setback in 1963). With respect to export sector and the mild rate of inflation, Peru may initially be considered a relative success as compared with Argentina, and less sowith Chile. But, on the other hand,

*See, for example, Mr. D. Felix who says this is the one victory of the IMF in the inflationary Latin-American countries.)66).

it has to be remembered that Peru is a 'more' underdeveloped country in terms of structural characteristics: the economy is largely dependent on the external sector (as seen in the import coefficient; these non-export or traditional agricultural is very backward; intensive MST industrialisation has yet to start; the infrastructure bottlenecks are considerable; and, income distribution inequality is probably very considerable.*

Resuming, the behaviour of the external sector - together with its fluctuations - has been closely correlated with the rate of growth, at least from 1950 to 1965. Indeed, Peru's growth rate is among the fastest, if not the first of the region. Thus Peru has to be interpreted as a successful case in terms of the structuralist model. That is, one where in the long-run the absence of a foreign exchange bottleneck has permitted a fast rate of growth,** although mild inflation (over 7% per annum) has been a permanent feature of the system.

ANother qualification is important, as compared with the rest of the semi-industrialised countries. Peru only started to industrialise until well after the end of Second World War. Although, from then onwards it has continued to do so at a realtively fast rate. Still, it is fair to claim, the MST - as represented by the import structure - has not reached the fdifficult position it has in some of the other countries; and is thus less vulnerable to the external sector, which in any case has been relatively favourable.

Important too is the fact that throughout the 1950's Peru was characterised by a liberal trade policy, a free exchange rate policy, and low levels of taxation. The fact was accentuated by the stabilisation plan. The IMF, as in the other cases, granted credits and encouraged other foreign creditors upon the condition of restrictive monetary, fiscal and wages measures. Although it is unnecessary to describe again the premises of the IMF, as in Argentina and Chile, they were based on the belief that market forces bring a satisfactory rate and pattern of growth and that inflation and external disequilibrium in Peru were also caused by an excessive demand. The cure ought to be a restriction of aggregate demand, through the restriction of credit, the elimination of budget deficits, and the control of wages. The implementation of these assumptions and policies has had very negative results in Argentina and Chile; where the cost paid was high in terms of growth, external crisis, further inflation and political upheaval. Superficially, however, it seems that Peru is an exception since, after the 1958-1959 programmes, there has been fast growth and external equilibrium, if not price sta-

(Both footnotes on the following page)

bility, from 1960 to 1965. Structuralism rejects this conclusion or 'ex - ception.'

The discussion will cover three aspects: (i) a description of the general trends in the Peruvian economy during 1950-1956 that culminated with the 1957 disequilibrium; (ii) the study of the 1958-59 stabilisation measures; (iii) and the developments that followed it from 1960 to 1965. The exposition relies largely on the research and conclusions of Miss Rosemary Thorpe, from the Oxford University Institute of Economics and Statistics (68). A severe limitation of the exposition is the unreliability of the National Account statistics in Peru. The fact is well reflected in the divergences between the two main sources of official information - the Central Bank and the Instituto Nacional de la Planificación.** Following ECLA, we shall rely mostly on the second source.

Before going ihto the subject, as before, it is useful to give a summary in the long-run trends in monetarists and structuralist variables. With respect to monetarism the following has been obtained:

1.- No statistical correlation was found between increases in the supply of money and quasi-money and inflation. Indded the supply of money may be made to contract and prices remained the same, or viceversa (See Part II, Chpter 2, section a).

2.- Budget deficits have been relatively small as a % of GNP. No correlation, however, was found between them and price increases. Budget deficits, may fall or increase, and prices remain the same on average (see section b).

3.-With respect to nominal industrial wages they are, again, correlated to prices with a year lag. As before, it is concluded that their role is limited to the inflationary spiral (see section c).

4.- Exchange rate devaluations in Peru have been less severe and infrequent, and hence inflation milder. They are taken to be a reflection of setbacks in export demand (which creates a temporary foreign exchange bottleneck).

With respect to the structural causes of inflation the trends are the following:

1.- Peru's food production per capitalhas grown very slowly and with a tendency to stagnate. Moreover, food price increases have tended to be above the cost-of-living index (see Chapter 3, section a).

2.- It was seen that Peru's exports and imports present a certain yearly instability, but over the period as a whole the rates of growth in the capacity to import and imports of goods and services has been remarkable.

From previous page

* For a discussion on the subject see ECLA's El desarrollo industrial en Peru

** A qualitative interpretation of the rate of growth, whether in terms of the standard of living or the national ownership of property may lead to other resul

**For a discussion on the subject see Miss Thorpe.

Moreover, Peru presents a net inflow of foreign capital mainly in the form of direct investment; and, after the 1957-1959 crisis, there has been little foreign indebtedness. The favourable and growing external sector thus explains the fact that inflation has been mild (see section b).

3.- Although industry has expanded fastly as a % of GNP, the import coefficient has kept growing and not much visible MST is visible in the import structure. Thus the industrialisation that has taken place has done so in favourable circumstances, i.e. with an ample capacity to import. If this may be called a structural change, it has been a change undergone with relative stability and flexibility (see section c).

4.- In Peru there has been growth in public revenues (mainly for the external sector), expenditure and investment. It is interesting to note, moreover that those periods when public investment has fallen price increases have been higher. It should be note, however, that Peru is a relatively backward country in that infrastructure is limited and public accounts rudimentary; i.e. there is a very large predominance of indirect taxation (see section d).

In these circumstances, the experience with inflation has been varied. Before 1950, a period we shall disregard, prices increased 19% on average. With the export boom, 1951-1965, prices came down to 8% on average. It is important to note that during the 1957-1959 external crisis, which coincides with the stabilisation programme, prices increased to 9.7% on average.

(i) The growth of Peru during the 1950 to 1955 and the 1957 disequilibrium

A brief look in the sectorial composition of the economy in 1950 showed the existence of a large and diversified export sector; an inefficient agricultural production for the domestic market - which had to be supplemented by imported foodstuffs - and a small industrial sector. Moreover, regional income inequalities, as well as for income groups, have been very sharp.* The per capitalfoodproduction is very poor and the land tenure system concentrates the good land on a few estates, while the majority of the agricultural population lives in appalling conditions in the Sierras, with minifundia and subsistence levels.

Hosever, it has been Peru's regional differences which have allowed her to achieve a remarkable export diversification for Latin-American standards, despite its primary nature (see Table II). While the coastal

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*Miss Thorpe writes that in 1954 the per capita income of the Andean region (the Sierra) where 60% of the population lived, was less than 40% of that of the Coastal region (the Costa), while per capita income in the jungle region (selva), where a further 15% of the population lived, was even lower than that of the Sierra.

region specialised in agricultural exports (57% of the total and mainly cotton and sugar), the Andes are vast in mineral resources (24%)of the total, which was composed of copper, lead, solver, zinc, iron, etc.). Petroleum also has an important, but stagnant, share of the total. Fishmeal, on the other hand, underdeveloped yet in 1950 was to become a booming export. This diversification, among other things, has protected Peru from international price fluctuations.* and accounts for its fast rate of growth from 1950 to 1956 and for the flexibility of MST. That is, the opposite of Argentinal

Unlike the other countries of the region considered, Peru faced a relatively stagnant export sector from 1946 to 1949, something which was accompanied by fast inflation (19% on average). The period was thus one of import controls which, however inediccient, stimulated insutrialisation. fn army coup d'état in 1949, which removed president Haya de la Torre, altered the economic policy. Peru moved into a period of labour restrictions freer trade and a free exchange rate.** Intervention was reduced to some price controls and import and export taxes.

What were then the developments of this regime?

1.- The dominant characteristic was the recovery in exports, arising both from the recovery of world markets during the Korean War and from a large inflow of private foreign investment, especially into mining. This inflow was encouraged by two factors: theynew exchange rate system and the new mining code, which guaranteed mining companies tax exceptions for 25 years from any increase in the present very low level of taxation. The inflow of foreign capital, says Miss Thorpe, rose from 4 million dollars in 1950 to 42 million in 1951 and 69 million in 1952. This was followed by a rapid expansion of mineral exports (See Table II) and by an overall rate of growth of some 10% per annum both in volume and value from 1950 to 1956. This was despite an external setback in the prices of cotton and sugar in 1952-53. Export growth and the net inflow of capital, which permitted a deficit on current account, meant that the freedom to import could be met without running down exchange reserves or incurring in foreign debt.

2.- The growth in the external sectof was reflected in a very high rate of growth: per capita product increased by 24% from 1950 to 1956; something rather amazing, at least for Latin-American standards. This, does not mean that there was a progressive distribution of income, scanty evidence

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*For a discussion on the subject see Part II, Chapter 3, section c.

**In fact, during this period Klein-Saks made its first appearance in the Latin American scene.

TABLE I

Per Capita Indices of Domestic Food Supply, Food Consumption and GNP [a] and Annual Price [b] and Industrial Wage Increases [c]

(1963 prices, 1950 = 100)

Year	Domestic Food Supply	Domestic Food Consumption	GNP	Prices Annual rate incr.	Industrial Wages
1950	100	100	100	14	-
1951	105	102	108	10	-
1952	107	107	110	6	16
1953	107	107	110	9	10
1954	106	105	118	5	32
1955	103	105	121	5	3
1956	94	97	124	5	5
1957	94	97	122	8	20
1958	98	100	123	8	4
1959	100	104	123	13	17
1960	102	104	131	8	12
1961	108	111	138	7	8
1962	111	114	146	5	11
1963	107	110	147	7	-0

Sources: a) R. Thorpe, Inflation and Orthodox Economic Policy in Peru, op. cit.
b) IMF, Internacional Financial Statistics, 1967.
c) P. Uri, Una política monetaria para América Latina, op. cit.

TABLE II

Peru: Indices of Major Exports, 1950-56

(1950=100)

Year	Total	Agricultural	Mineral	Fuels	Fishmeal
1950/sjare	100	57	24	13	3
1951	128	134	152	81	106
1952	121	119	159	70	136
1953	113	109	154	57	132
1954	127	113	182	67	212
1955	139	116	212	85	221
1956	160	130	255	92	275

Source: R. Thorpe

points to the opposite. Moreover, the rate of inflation was reduced from 14% in 1950 to 5% in 1956 (See Table I).

3.- The availability of imports - capital goods, consumer articles and food - the external demand, and government expenditure resulted in the steady growth of output. The policy, from the monetary and fiscal angles, was quite expansive. The growth of public expenditure - from 12% of GNP in 1950 to 17% in 1956 - was made possible in part by rising revenue from import and export taxes and from budget deficits. Thus the rate of growth increased, inflation was reduced, and public expenditure increased.

4.- What is interesting is that the rising trends in output, exports and imports seems to have reduced the inflationary impact of the 1953 devaluation. This was, however, a small devaluation followed by a revaluation:

TABLE III

Peru: Variations in the Rate of Exchange, 1950 to 1966.
(sales per dollar)

Year	1952	1953	1954	1958	1959	1960	1967
Exchange rate	15.60	19.90	19.00	24.50	27.70	27.76	38.0

Source: IMF, IFS, 1967-8

5.- The main reason for the move towards stability was the fast rate of growth of imports. But, other factors also contributed. This period is characterised by the relatively weak position of the labour unions under the military didctatorship which lasted until 1956. In contrast with Argentina and Chile, the authorities were able to restrain wage increases (something which is not reflected in industrial wages, Table I). without provoking widespread strikes. It is believed that real earnings of the wage sector fell during the period and accentuated the already very regressive distribution of income.* The decline in income experienced by lower income groups is suggested by the figures on food production and consumption: the data (which are not reliable) indicate that while GNP per capita rose by 4% up to 1956, per capita food consumption decreased. Moreover, according to the Central Bank, whereas between 1954 and1959 per capita income in the Costa rose by 4%, it fell by 7% in the Sierra. This picture is supported by data on the real income of the self-employed in the agricultural sector, which in aggregate failed to rise over the period; since the income of the self-employed in the export sectors must have risen considerably with the growth of exports, the income of some groups must have fallen.

6.- The expansion of the export sector was thus accompanied by a poor performance in agriculture in general, but it enabled industry, construction and transport to expand rapidly. From 1950 to 1955 agriculture grew on aver -

* See. R. Thorpe, op, cit.

age at 2.1%, industry at 7.8%, construction at 10.6% and transport at 815%. Industry rose from representing 15.6% of GNP in 1950 to 17,6% in 1955. (70)

So all was well until early 1957. During this year export demand weakened, output per capita fell, and prices increased. (See Table I). The trends culminated in 1958 and1959 when an external crisis was obvious and the IMF stepped in. The figures for this period are very unreliable, those of the Instituto Nacional de Planificación contradict the figures of the Central Bank

GNP barely rose in 1957, in contrast to an annual growth rate of 6% since 1950. The levelling off of the rate of growth, originated chiefly with exports and with food production for the domestic market (See Table IV). Over the year as a whole, total exports were stagnant in volume as compared with a rise of 14% in 1956, while some exports declined (See Table IV). Private investment did rise, but only by 10% as compared to 40% in 1956. Further, the increment was entirely in foreign einvestment, it formed part of a long-term plan and had little effect on domestic incomes. It was chiefly reflected in rising imports of capital goods, which rose 50% in 1956 and by more than 20% in 1957. On the other hand, public investment fell.*

Despite the stagnation of production the value of imports rose by 28% in 1957, owing partly to the increase in imports of capital goods brought by foreign investors and in food imports following two bad harvests. This rise in imports combined with the fact that exports were now growing very slowly led the end of the year to a difficult balance of payments position (See Tables IV and V). In fact, the surplus on capital account was insufficient to cover the traditional deficit on current account and the Central Bank's reserves fell to 33.5 million dollars, the equivalent of one month8s imports. This was when the IMF stepped in.

(ii) The Stabilisation Measures of 1958-1959.

There were actually three stabilisation efforts accompanied by IMF missions and recommendations, during this period. Early in 1958 the first mission and loans of the IMF came to Peru. Heavy pressure on the sol in the first quarter of 1958 had further reduced the foreign exchange reserves to 5 million, while the import bill for 1957 amounted to 400 million. The The Central Bank was thus forced to withdraw from the foreign exchange market. The IMF granted standby credits to 25 millions, which were supplemented by further credits of the United States government to make up a total of 60 million.

*See ECLA, Economic Survey for Latin America, 1963.

The recommendations for stabilisation followed the customary pattern:

1.- The balande of payments disequilibrium was explained as the result of inflationary pressure, arising from the expansion of credit to the public and private sectors. In fact, in 1957 the supply of money had expanded by 8%, while the growth of GNP at current prices had been 10%. Nonethe less, the volume of credit granted by the Central Bank to the state banks was not bo be increased and legal reserves of the banking system were to be enforced with a raised penalty rate on reserve deficiencies. Moreover, official deposits then held by private banks were to be kept in the Central Bank.

2.- The budget deficit was to be eliminated in 1958 by reductions in public expenditure, better tax enforcement, and temporary duties on certain imports

3.- The overall system of free trade and a free exchange rate was to be maintained. This amounted to an immediate devaluation from 19 soles per dollar to 24.50.

What were the immediate results of these first measures?

1.- Monetary restrictions, which had been introduced in 1957, were maintained and tightened in 1958, though with little success since the government continued to borrow from the Central Bank and a prolonged bank strike make controls impossible to operate. (The supply of money increased by 24%, although quasi-money was sharply reduced). However, it was possible to curtail credit to the state development banks .

2.- To reduce the general budget revenue earmarked for investment purposes were reduced. The result was a fall in public works. Government current expenditure was not reduced, since it comprises largely wage and salary payments. Other measures induded some increases in indirect taxes.

3.- The government was allowed to raise import tariffs up to 50 and 100% for luxury imports.

4.- The rate of growth of output was only 1% higher in 1958, while prices continued to increase at 8%, a relatively low rate considering the amount of devaluation and the import restrictions.

5.- The implementation of these measures coincided with increasing labour unrest and political tension. It should be remembered that in 1956 the dictatorship of General Ondría was over and that president Prado was elected democratically. In such a setting, the labour sector was able to express discontent against the policy. In 1958 numerous strikes broke-out: taxi drivers, petroleum employees and other miners, hospital staffs, building workers, bank clerks and the police. Most wage demands were for 40% salary increases; but, in the end, government granted increases which on average represented about 11%

TABLE IV

GNP and its Major Components by Expenditure

(1957 = 100)

	1960	1961	1962	1963	1964	1965
GNP	109	118	129	134	144	150
Personal Consumption	102	109	121	135	146	153
Public Consumption	110	126	132	139	155	161
Gross fixed capital form						
Total	130	148	165	156	163	208
Public	90	163	183	112	231	238
Private	109	134	155	156	152	203
Exports	126	147	155	150	162	160
Imports	119	145	164	179	193	230

Source: R. Thorpe, op. cit.

Indices of Prices and Volume of Exports, 1956 - 1965.

(1958 = 100)

Year	Prices	Volume	Fishmeal	Cotton	Sugar	Lead	Copper
1956	95	91	26	101	105	-	-
1957	96	91	58	76	122	88	94
1958	100	100	100	100	100	100	100
1959	119	111	262	107	116	84	91
1960	120	147	479	93	127	86	312
1961	115	172	670	106	133	104	369
1962	118	182	998	129	113	106	319
1963	123	179	982	116	118	88	303
1964	139	194	1350	107	101	122	333
1965	140	185	1230	107	87	110	334

Source: Internacional Financial Statistics, IMF, 1967.

External Terms of Trade, 1957-1965

(1958=100)

Year	1957	1958	1959	1960	1961	1962	1963	1964
T of T	113	100	95	100	97	98	105	123
M	120	100	83	96	124	141	154	154
X	114	100	106	152	174	190	190	234

Source: Boletín Estadístico de América Latina, UN, N.Y., 1965.

TABLE V

Peru: Balance of Payments, 1957 - 1965 (millions of dollars)

	1957	1958	1959	1960	1961	1962	1963	1964	1965
ent Account	-143	-123	-36	19	-8	-36	-81	16	-123
Merchandise									
Exports	332	292	323	444	510	556	555	685	687
Imports	-402	-345	-281	-341	-429	-478	-518	-518	-643
Balance	-71	-53	42	103	82	78	37	167	43
Services	-56	-49	-44	-50	-54	-66	-65	-95	-106
Investment Income	-34	-36	-44	-55	-63	-66	-72	-70	-76
Transfers	18	15	10	21	27	18	19	15	15
monetary capital (receipts +)	121	105	51	8	12	69	62	61	140
Long-term private direct investment	51	30	18	11	14	16	-5	10	18
Other private long-term investment	48	59	31	5	-10	2	9	1	4
Private short-term investment	15	8	8	1	16	29	4	-22	-6
Government	8	8	-7	-9	-8	22	54	72	125
ent and non-monetary capital unts (A+B)	-22	-18	15	26	4	33	-19	77	17
tary Assets (increase -)	27	12	-23	-28	-36	-13	-35	-48	-22
Net liabilities (increase +)	-	11	4	-15	-1	- 1	-1	-	-
Commercial banks reserves (increase +)	-7	-1	-6	4	-1	-6	-16	-23	-7
Central Banks reserves (increase -)	34	2	-21	-17	-34	-6	-18	-25	-14
s and omissions (C+D)	6	-6	-8	-2	-31	20	-54	29	-5

ce: Banco Central, Las Cuentas Nacionales del Perú.

The labour unrest and the resistence to increase wages forced the cabinet to resign in May. With respect to ethe inflationary aspects of the increase, both Miss Thorpe and ECLA, clarify that the statistics are unreliable. It is peculiar to see, however, that nominal wages in industry only increased 4% in 1958, while prices increased 8% (See Table I). These wages, however, had increased 20% in 1957. Wage demands were a result of the devaluation early that year, import controls, less subsidies on food, and rising food prices. Before 1957, as a result of high imports and subsidies, food prices were below the cost of living index and after they caught up.

Thus the new cabinet started a second stabilisation effort in the second half of 1958.

1.- An additional credit was negotiated with the Export-Import Bank for 40 million.

2.- Credit restrictions were to be maintained after the unavoidable relaxation during the bank strike. Between July and December a net contraction in commercial bank credit took place, despite rising prices. But, government borrowing from the Central Bank rose, despite the fiscal effort.

3.- The reduction of the budget deficit was again met by a cut in public investment, since it was seen impossible to reduce the civil service or their wages. Sales taxes were to be raised and stiffer penalties for tax evasion were introduced. Import duties were to be raised from 100 to 200% on luxuries.

4.- Only part of this policy was successfully implemented. Import taxes -which were not mentioned in the programme - were raised again. But, wages in manufacturing appear to have increased by 10% in the first months of 1959. Fiscal and credit restraints were notably unsuccessful. Public investment was reduced sharply (25%) but public consumption rose by 18% Food subsidies which represented a burden on the budget, were continued. There was a second bank strike early in 1959 which again resulted in the relaxation of credit. Despite the authorities commitment not to increase borrowing from the Central Bank, it had to continue doing so. Thus, in June 1959, the cabinet resigned once more.

5.- By 1958-9 however, the reversals in orthodox measures had affected the domestic economy severely. That is, the continous reversals in credit conditions to the private sector each semestre, as well as the contractions in public investment followed by increases in a consumption must have affected investment demand. The growth of GNP stopped and inflation reached an all-time maximum of 13% (1951-63). Thus, not so paradoxically, the programme had only succeeded in stopping growth and increasing inflation.

However, the explanation of the recession lies chiefly in the cut in investment demand and in a further weakening of the exports and imports. Miss Thorpe estimates that the fall in total investment in 1958 was 14% in real terms and that the downward trend continued in 1959. The shapp fall in public investment has strong repercussions on domestic incomes. Total export revenue was below the 1957 level. Cotton recovered a little this year but there was s sharp fall in copper prices and a reduction in sugar and fishmeal prices (See Table IV).

6.- Despite the fall in export revenue, the balance of payments on current account improved owing to a fall in imports. Thus the recession and the import controls (not supported by the IMF) were the factors that contributed to this. The balance of payments also recovered. (See Table V).

7.- The rise in prices - devaluation, scarce imports, wage increases in the public sector - made it impossible to balance the budget deficit as the programme required it. In fact, the budget deficit increased. As a result there was considerable borrowing from the Central Bank. By mid 1959 it was clearly that the agreement with the IMF had been broken; not only was the government drawing heavily on the Central Bank, but falling export demand was coupled with some capital flight occasioned by the lack of confidence in the economic policies.

8.- The failure of the programme to achieve either external of internal stability may be blamed on deflating demand without considering the trends in the export sector. While export demand was falling the attempt to achieve external equilibrium by orthodox measures (at the cost of production and employment) simply led to pride rises, scarce imports, lagging wages, social tensions, and a persistent external imbalance. The lesson seems to be that if a foreign exchange bottleneck appears and creates disequilibria, trying to solve the problem with orthodox measures may lead to a contradiction in the implementation of the measures themselves although they succeed in depressing the economy.

9.- In synthesis, the problem with the stabilisation programme up to mid-1959 lies in the reversal of the orthodox measures together with the increasing price inflation and the standstill of output. One has to be careful, however, in saying that the programme was both inefficient in bringing stability and efficient in bringing deflation. One cannot have it both ways! With respect to monetary policy it is best to consider it neutral. Although the successive contraction and expansion of credit to the private sector obviously affected investment decisions, and credit to the public sector was drastically reduced. Monetary policy, however, was neutral in the sense that the expansion of credit through the 1958-9 period was similar or slightly higher!- to that of previous or following periods. With respec

to fiscal policy, the budget deficit was large in 1958 but it was reduced in 1959. It results are ineffectual, public consumption increased and investment was reduced, something hardly helpful either in the short or long run. It is true that revenues increased, but they did so because of import surcharges (unwanted by the programme) and higher indirect taxes. In this context orthodox policies were insecure and harmful. Inflation is thus best explained by devaluation, higher food prices, wage increases, and the external bottleneck which resulted in lower imports. It is the external bottleneck which in the final sense explains the increase in inflation and the stagnation in output (the fall in external demand, import controls and devaluation).

Yet again, in mid 1059, the new cabinet drew up a new stabilisation porgramme and a new agreement with the IMF:

1.- The time the measures were to be more wholeheartedly orthodox: a balanced budged, a severe credit squeeze, all food and petroleum subsidies were to be ended; wages were frozen; the remaining controls on foreign trade were removed, and the exchange rate was devalued further.

2.- Special measures in the monetary field were an 18% penalty interest rate on reserve deficiencies and a raise in Bank Rate from 6 to 9.5%. The problem of eliminating the budget deficit was made difficult by the declaration that taxes were not to be increased. Thus a further drastic reduction in public investment followed. Public investment was cut by a third in real terms in 1959, investment in agriculture and industrial development being cut with severity.

3.- As it was said, over the whole of 1959, growth came to a stand-still and inflation was severe. The surprising thing is that the decline took place during the first half of the year, while economic recovery was on its way on the second half. Since the orthodox policy coincided with the recovery - and its results could not have been instantaneous - other factors have to explain such a recovery. It is, of course, tempting to attribute the recovery and the boom that followed to this last stagilisation effort. In fact, this is what monetarists have done. The structuralists thesis maintains, however, that recovery was not achieved by the programme but in spite of it.

4.- By the end of 1959 production began to rise, inflation decelerated, the balance of payments improved, and foreign exchange reserves had risen so much that the authorities were able to pay back ahead of schedule a large part of the drawings made on the IMF! Price increases fell again to 8% in 1960 and production gathered momentum so that per capita income rose by 8%. Moreover, the economy, despite a slowdown in 1963, achieved a real rate of growth of 7% on average between 1960 and 1955.

Let us then turn to the structuralist explanation of this remarkable recovery.

(iii) The Post-Stabilisation Recovery of 1960-1965.

The structuralist thesis states that the recovery is not to be found in the contradictory orthodox trend, but in the growth of exports which occured at a crucial moment in the second half of 1959. Monetarists, however have atributed the recovery of exports to the stabilisation measures of the latter semester. There was in fact a small devaluation in 1959 which reduced further the exchange rate from 24.50 soles per dollar to 17.70 soles; yet this was followed by a revaluation in 1960, which reduced the rate to 26.70 soles (See Table II). As we shall see below, it seems arbitrary to atribute to devaluation the short-run and high elasticity of export supply. If defaluation, in fact, would stimulate supply there was simply to time for it to work. In Argentina and Chile it has been seen how slow the respon in primary sectors - because os institutional reasons too is to such price incentives, if indeed there is any response and a price gap that is not soon wiped out by inflation. Prices in Peru were increasing at 13% in 1959 and 8% in 1960. Moreover, according to Latin-American experience and to Mr. Diaz'theory based on Argentinian devaluation, it has been seen that devaluation and external equilibrium move pari passu with a fall in output, which affects both production for the domestic and the foreign markets. It is best tolook for the fast response in Peruvian exports elsewhere. With these precautions, let us examine the behaviour of exports from 1959 to 1965, following Miss Thorpe's intelligent discussion. (See Table IV again).

1.- As we have seen, it is true that Peruvian economic policy - and its approach to foreign capital* - has favoured the development of exports. But, the point is thqt the remarkable recovery in exports in 1959. - after two years of depressed prices - occurred independently of any immediate policy measures taken, i.e. devaluation. It rather reflected on part, the maturing of large investment made years earlier and in part the revival of world demand for Peruvian products at a crucial pint in time.

2.- During the first half of 1959, the world prices of all Peru's important exports except copper had continued depressed or had fallen even further below their 1957 level. But in July and August 1959, for a variety of reasons, world prices began to improve on all sides. Thus cotton prices rose, sugar prices stabilised, copper prices continued to rise and lead and zinc quotations recovered. The IMF export index shows an increase of 7% between the second and third quarters of 1959 and this was followed by a further rise in the dast quarter.

*Something that may have suffered a political reversal in 1969 (See The Sunday Times, February 9th).

3.- What is more important for growth and external stability - although not so much for domestic prices in Peru during this period*, the recovery in export prices was sustained with minor fluctuations over the next five years. Average export prices rose 40% between 1959 and 1965. Again, the diversity of Peru's exports ensured that an unfavourable trend in the demand for one or two products was normally counterbalanced by rising trends elsewhere. Good fortune also helped: the long-fibre cotton of Peru was less affected by international price falls than the other varieties. In 1961, the year of least buoyant prices, sales of sugar benefitted from an increased USA quota, following the Cuban crisis.

4.- The next point to explain is why Peruvian supply was able to respond to rising external prices; while Argengtina's supply was inelastic and Chile was unable to diversify. Export volume, in fact, rose 60% between 1959 and 1965. It was again partly good fortune that helped Peru. In 1959 two sources of foreign exchange facing a strong world demand - fishmean and iron - were able to increase their volume substantially, despite the deflation. The continous growth of the fishmeal industry is fundamental. Of the total increase in exports during 1959, 75% was formed by fishmeal and other fish products. But, exports of fishmeal had been doubling on average since 1956, so that 1959 was only part of the trend. It was Peru's good fortune that this dramatic rate of growth had reached the point by 1959 where the increment made a significant and decisive impact on total exports. Irson ore expansion was the result of the opening of the large mine of Acarí, whole development started in early 1958.

5.- Thus rising prices and the Previous expansion in supply combined to bring about a sustantial rise in the value of exports over the period. In the third quarter of 1959 their dollar value rose from a quarterly average of 69 million over the previous 18 months to 86 and to 94 in the last quarter. In 1960 exports rose by a further 40%. From 1961, the rate of growth was more sober, but still resulted in an increase of 10% on average in export value, chiefly caused by the continous growth of fishmeal.

The next point is to see what the developments in the economy were:

1.- The stimulus to p roduction provided by the growth in exports, specially after mid-1959 was enough to offset the impact of the stabilisation measures. In fact, deflation did not prevail in 1960 as one would have expected after the orthodox measures in the second half of 1959. Production was stimulated not only directly by the growth of exports, but also indirectly, with the de facto elimination of some credit constraints via the balance of payments. The improvement in the balance of payments was reflected in an increase in foreign assets during 1959 which was more than

* The mild and manageable inflation of 1960-64 could be attributed to the export boom.

enough to outweigh the effect of the credit squeeze on commercial banks, resulting in a larger increase in the supply of money. The Chilean experience points out clearly how an increase in foreign assets, specially if there is a free rate of exchange, results in an expansion of liquidity. The steady growth of external resources after 1959 (See Table V) continued to ease the credit position so that by 1961 the authorities relaxed credit controls. The exchange reserves (except in 1963) improved remarkably from 1960 to 1965.

2.- The improvement in the external position also meant that there was no need to further reduce imports. The Chilean mistake was not made: surcharges on certain imports were maintained, although no additional measures were taken. Imports actually rose in the second half of 1959 and by 1961 they had surpassed the depressed level of the 1957 crisis. Thus the value of imports rose rapidly in response to the growth of external demand (See also Table IV). But nonetheless, foreign exchange reserves rose from 30 million in 1959 to $75 million in 1965 both owing to exports and the inflow of foreign capital. Other things being equal, there was no foreign exchange bottleneck and GNP rose on average at 5% per annum.

3.- Moreover, the rise in exports and the recovery of economic activity resulted in a substantial increase in public revenue after midl 1959. This meant that the struggle to balance the budget could be relaxed without further cuts in public investment. It should be remembered that the drastic cut in public investment in 1957-59 was accompanied by three years of stagnatio in output and increasing inflation. The recovery in public consumption was sharp and that in public investment rose dramatically (it more than doubled during 1960-65). Part of the increase in public investment was made possible by the inflow of foreign loans, which no longer demanded restrain. (See table V).

4.- Although less gignificantly, there was also a sharp rise in private investment which almost doubled itself between 1960 and 1965. This was stimulated by the relaxation of credit, the flow of foreign capital and the expansion of the public sector. Additional factors were the increase in tariffs exceptions on imported machinery and the Industrial Formation Lqw (tax concessions to industrial investment, particularly if made away from Lima). Thus the growth of exportsl public expenditure and private investment led to a sharp rise in production. ECLA estimates that manufacturing during 19t065 grew at an average of 7.4%; construction at 13.3% and agriculture at 5.4% (71).

5.- But when all has been said - foreign exchange bottleneck ir not - inflation still remains a feature of the economy (see table I). It is true that the rate of inflation was reduced from 13% and 8% in 1959 and 1960 respectively and to 7% on average between 1961-1964*. But this hardly seems significant considering that inflation was milder before 1957. The fact that inflation has been persistent must thus be examined in terms of the domestic economy and booming external sector. One can only suggest here that special attention should be given to the following factors. There is evidence that the domestic agricultural sector which caters for domestic consumption is rather inelastic (See Table I). It is also believed that the domestic market for essential manufactures is very reduced on account of the low level of income and its probable regressive distribution. Importance should be given to the sort of public investment that is taken place; it is significant that military investment and public luxury construction have been rising. Although it is still early, the inflationary aspect of MST has to be explored.**

6.- On the other hand, although data are very unsatisfactory, Miss Thorpe points out that wage inflation has not been prevalent in Peru. The stabilisation programme failed to create a wage-price spiral, as it did with a dag in real earnings in Argentina and Chile. Certainly the devaluation and the removal of food subsidies contributed to the rising inflation of 1959; but this sharp rise was reduced in the following years, specially by 1961. The fact that a wage-price spiral is highly improbable is, of course reflected in the external recovery, the development of activity, rising employment and the traditional low levels of wage income; and the fixed exchange rate (1960-66).

Finally, let us try to summarise the 1960-65 trends in economic activity, with respect to inflation and the stabilisation programmes:

1.- The role of external factors in moderating inflationary pressures was twofold. First the rapid recovery in production as a result of the stimulus to demand via exports helped to increase employment and to reduce labour tension. Second, the elimination of the external disequilibrium as early as 1959 meant not only that there was no further need to cut imports, by tariffs or devaluation, but that imports could actually rise very fastly to reduce bottlenecks in supply. And, what is just as important, there was no need to take recourse in large foreign loans which in the end destroy external equilibrium. Thus the external vicious circle into which Argentina and Chile had fallen was not present and as a result price increases were much milder.

2.- Over the long-run (1950-1965) exports have played a dominant role in determining the rate of growth, and less so the rate of inflation. The correlation between the growth in exports and GNP may be seen in Part II, Chapter 3, section b.

(See both footnotes on the following page)

3.- It is improbable to attribute a significant role in the growth of exports to the orthodox policies. The argument was that devaluation had played a part; there is, however, little evidence for its role in the expansion of exports. Mining has shown little or no short-run supply elasticity. The value of sugar exports was a consequence of the Cuban crisis; and, cotton which accounts for a small contribution, faced less favourable conditions. A case might be made out for fishmeal, but as figures show there is every sign that a highly profitable boom was already underway as early as 1956.

4.- In consequence, the revival of exports and domestic activity - and not the programmes - provided the incentive to foreign private and public capital; without the growth of exports, as it has been seen in other cases, the burden of foreign debt would have become a severe hadicap to the country.

5.- The sharp cuts in public investment during 1958-9 probably served to aggravate the infrastructure bottlenecks and the food deficit; moreover budget deficits persisted.

6.- If what has been said is true, it is not valid to argue that stabilisation programmes in Peru have succedded in either stabilisation or growth objectives. Hence, from the Peruvian, Argentinian or Chilean experiences, it is not valid to recommend these policies to inflationary Latin-American economies.

It can be argued, however, that when export and imports recover - spec ly in a setting where MST has not reached a difficult stage and where trade unions are weak - an orthodox stabilisation programme either is relaxed or does not do the harm it does elsewhere. Revenue from the external sector rises and public accounts become more manageable. Foreign capital and inve ment create liquidity in the system, together with the rise in domestic su Rising imports maintain production and consumption going and reduce wage pr sures. The favourable setting may come to an end, as it did in Peru in 19(when despite the trends in exports external disequilibrium becomes precari(That is, when the fast rate of growth induces first a disequilibrium on cu rent account and later on the balance of payments, when the net inflow of foreign capital is reduced - as a consequence of interest, profits and amo tisation- and the current capacity to import is reduced.

(From previous page)

** For a rather ill-fated external sector projection, but for a good discus- ~~sion on industrialisation~~ process see ECLA's El desarrollo industrial del (72)

* By 1965-68 inflation accelerated again - initially through the sharp devaluation of 1966- creating a new era of political tension which culminated with the military dictatorship of general Velasco in 1968, who took over from President Belaunde. The new dictatorship - unlike the rest in South America has taken a marked controversial and unorthodox policy standing towards foreign capital, land tenure systems industrialisation and so on.

Concluding Remarks

It is not the intention to make here a summary of the work. Where it was thought relevant each chapter or section has its own conclusions. Here, rather than conclusions, it is convenient to state some final reflections. Several points ought to be made. Firstly, these remarks should not be taken in isolation of the thesis; least they should appear more venturesome. Each comment is an opinion resulting from previous research. Secondly, they will be simplistic - perhaps commonplace - so as to clarify the empirical experience obtained from the controversial and complex subject of inflation in Latin America. Thirdly, they will insist on these things: some of the results obtained in the work, its purpose, and the approach used.

1.- The purpose behind the thesis is the ideal possibility of achieving growth with stability in Latin America. It is thought, generally speaking, that the experience of the region presents two different situations: either instability with output growth or instability with stagnation. This dual problem is then approached in the following context:

   a) The main objective emerges as the failure of Latin America to achieve this ideal proposition. The failure, however, is set within a certain context: the 1946-1965 period (later with special reference to 1955-1965); the 'universe' composed by the unstable economies (not all Latin-American countries are inflationary) and the relative comparisons between the long-run trends in the different countries that form the universe (I.e. the most inflationary countries as one extreme and the least inflationary as the other).

   b) The specific objective is then an empirical research on (1) the 'causes' of inflation and (2) its 'cures' in the universe formed by the following countries: Argentina, Brazil, Chile, Colombia, Peru and Uruguay, on the one hand; Mexico by itself; and, Bolivia, Ecuador and Paraguay on the other. The initial criterion to select these countries is simply chronic price increases in a historical sense.

2.- With respect to the study on the causes of inflation several points have to be made explicit:

   a) The subject in Latin America - in terms of the main and specific objectives - takes the form of the so-called 'Monetarist-Structuralist Controversy'. Thus the first step is to interpret and to place the controversy within a frame of reference. That is, an abstraction that should define ideally what monetarism and structuralism are; the main qualified variables that explain inflation

in each school; how convincingly each one explains in simple empirical terms the inflation; and, should lead to the adoption of a personal interpretation (more of this below).

b) It is important to note that inflationary theories in Latin America should be studied against the background of the underdeveloped nature of the region. This means that the causes of inflation have to be referred back to the problems of growth with a poor structural setting and the need for a financial policy for development. Now, theories of inflation, however controversial, were made to interpret inflation in advanced countries. This establishes a relative theoretical difference between Latin America and, say, Western European countries. Still, it appears that inflationary theories as such remain useful in the context of the latter. They are thus applied to Latin America, but with cautious and revised assumptions that incorporate the underdevelopment background. It is fair to assume that to explain inflation requires a different approach in the region, although not a different theory.

c) The monetarist-structuralist controversy is in one sense (say, at the general level) an extension of the demand-pull and cost-push controversy. Structuralists have then taken up the subject in Latin America, stressing the nature of underdevelopment and, with certain qualifications, cost-push as an original cause of inflation. Monetarists have also taken-up the subject; but, with less interest on the underveloped - or structural - characteristics of the region and more interest in demand-pull, again with certain qualifications. But, in the final sense both argue that inflation is 'mixed' (More of this below).

d) The explanation of the causes of inflation (say, at a second level) involves two problems: the 'original' causes of inflation and the development of a price spiral where the causes interact and it is hard to see which lead and which follow. Structuralists emphasise as original causes a certain interaction between demand-pull and cost-push, but with more emphasis on the latter. Monetarists do the opposite. In fact, monetarists, on the one hand, say that the original causes of inflation are arbitrary expansions in the supply of money, public deficit financing, wage increases and devaluation of the exchange rate (in other words defficient economic policy). They grant later, that the inflationary spiral develops other cost-push tendencies in the manner of price 'induded' supply bottlenecks; the dis-

tortion of the price mechanism (repressed inflation), the savings and investment process, and foreign investment. But, placing this in an extreme sense, it may be taken to mean that underdevelopment, among other things, is a consequence of inflation! Structuralists on the other hand, say that the original causes lie in the growth and change in the structure of demand (population growth, urbanisation and education) and in the original existence of sectorial bottle necks in the external sector, agriculture, industry and infrastructure as well as in a regressive distribution of income. They also grant later, that the monetarist causes of inflation - propagating factors for them - may appear although not necessarily, within the inflationary spiral. The differences between the two sides of the controversy should not be underestimated. It does not only involve as a consequence a different economic policy, but a philosophical and ideological gap which leads to opposite and conflicting economic worlds.

e) Monetarists and structuralists are defined in the above way and treated as ideal representatives. That is, it would be difficult to find a single author that fits perfectly with the definition. With respect to general inflationary theories, it is misleading to simply identify monetarists with, say, the Chicago School around professor Friedman; or, structuralists with the Neo-Keynesian tradition. Superficially, monetarists both in Latin America and abroad, support the quantitative theory of money, the reliance on monetary policy, the free workings of the price system, liberalism in international trade, and so on. But, a closer look reveals emphasis on wage inflation, certain controls on foreign trade, public investment in infrastructure. What helps to define them in Latin America, however, is their very close identification with the policies of the I.M.F. For example, they might support some import controls, but they maintain that a free exchange rate system is conducive to growth and stability. Also, they might defend public agricultural works but shy-away from a land reform or merely draw up a plan and then store it away. Structuralists are closer to bring together in their identification with revolutionary propositions. Simplistically, they are a consequence of the Keynesian revolution; but they go beyond it and have borrowed from Marxian economics, Lizt, Veblen, and Leontieff. Moreover, they centre around - or are disciples of- ECLA. A way to define them is as public interventionists, to coin the Latin American phrase, which may range from authoritarian centralists to mild interventionists in certain sectors

and aspects of economic activity. Strictly referring to inflation, their emphasis on structural changes in demand and cost-push results in the recommendation of ambitious structural policies - aimed both at growth and stability - and not relying much on orthodox monetary and fiscal policies. But, their emphasis on growth makes them 'permissive' towards inflation - seldom explicitly - and brings in the attack from monetarists. In academic terms - perhaps slightly dogmatic - both opponents finish up claiming that their aim is growth with stability. From the experience of this work, however, monetarists, are identified with a stabilisation priority and a dangerous and ineffectual emphasis on deflation. While structuralists are identified with a growth priority and a certain permissiveness towards inflation. Another major difference is that monetarists are more 'general theory minded in the sense that the policies recommended by the IMF to, say, European or Latin-American countries do not differ basically; while structuralists, in their concern for underdevelopment, are more regional minded.

f) As the research advanced one comes close to adopting the structuralist thesis. The multiple issues at stake and the relative diversity of experiences between the countries, however, does not conclude in the whole adoption of one and rejection of the other. That is - and not wanting to sound opportunistic - the simple statistical testing of the two sets of variables showed that in some specific cases the monetarist analysis of the causes of inflation was relevant. For example, the correlation coefficients between prices and the supply of money and quasi-money (tested for both the structuralistsand monetarist assumptions) were not significant in the majority of cases, with the exception of Brazil, Uruguay, Paraguay and Bolivia where a case could be made for the monetarist hypothesis. The same was true, after qualifications, with budget deficits as such: either they are not correlated with changes in prices, or the higher the deficit the lower the pace of inflation, but, again, with the exception of Brazil and Bolivia. With respect to wage push it was concluded that, although it is dangerous to generalise on the Brazilian and Mexican experiences, wage increases as an autonomous sorce of inflation is not the case in Latin America. It may be said, on the contrary, that within the spiral nominal industrial wages followed price increases with a lag. Evidence may be found for minimising the role of wages in inflation, in the regressive distribution of income, the fall in real wage earnings, the weakness of trade unions, unemployment and so on. With devaluation of

the exchange rate both sides are correct in agreeing that its inflationary impact is enormous. But, here agreement stops. Monetarists blame devaluation, other things being equal, on overvalued, multiple or pegged rates; and, seem to condemn Latin America to small but continous inflationary devaluations. Structuralists, may defend pegged or free rates, but insist that devaluation is merely part of the foreign exchange argument. There is over the long-run a clear relationship between massive and frequent devaluations and faster inflation (I.e. Argentina, Brazil, Chile, Uruguay, Bolivia and Paraguay) and lesser inflation with rarer devaluations (Mexico, Colombia, Ecuador and Peru). On the other hand, empirical evidence shows, that structuralists are correct when they blame high and increase rate of dinflation on severe and long-run bottlenecks in agriculture, export markets and foreign exchange (except in Chile); on a costly import substitution industialisation; an infrastructure bottleneck; and perhaps, an inequal and regressive distribution of income which limits effective demand, the possibility of reducing costs and competing in the international markets. The weighing of these factors and the determination of the origins of inflation lend themselves, however, to the adoption of the structuralist thesis (more of this below).

3.- With respect to the study on the cures of inflation several points also have to be made explicit:

a) Among the many possible ways of undertaking the subject of anti-inflationary policies in Latin America two are adopted, so as to continue the study in terms of the controversy. The first, is the elaboration of a 'personal' framework, derived from the previous study of the causes of inflation, with which to interpret and adopt the academic solutions structuralists propose for dealing with the ideal solution. The second, is to select some of the monetarist or orthodox stabilisation programmes adopted in some countries, so as to see how well monetarism works in practice. The system used is 'unfair' to monetarism in that it is judging monetarists on what they have actually done to combat an inflation which they blame to structuralism. While structuralists are confortably judged on what they would like to do, not on what they have really done. There is, however, a rational to the use of this approach. First, the controversy is usually stated in such terms. Second, monetarists have had a chance to enforce their policies, however imperfectly, and they have promised stability. Third, structuralists, faced with the depression of the 1930's, only promised growth and not stability;

and, it can be argued, that their initial policies were emergency measures that never constituted a 'structuralist reform' in the proper sense. It was only later - after the war - that they worked on the experience and decided that Latin America should aim at growth with stability. But, in this sense, structuralists have not had a 'full chance' to demonstrate the effectiveness of their policies, while monetarists have.

b) Thus, the first part, which was called the structuralist reform, deals with what an academic policy that seeks stability should be, not on what it really is. Only in this secttion did the thesis drop the empirical approach followed throughout. The 'problem' with the structuralist reform is that it seeks a stabilisation compatible with fast economic growth. In fact, it seeks to achieve price stability through ambitions - and expensive! - structural changes that range from land freform to a Latin-American Common Market and exporting manufactures to advanced countries; passing through in more immediate measures public deficit financing, industrialisation, protectionism, a redistribution of income, reforms in orthodox monetary and fiscal policies, foreign credits, and so on. In the last event, this may be interpreted as giving growth an over-riding priority over stabilisation (for practical purposes it may appear impossible to stop, let alone reduce, the pace of inflation in the short-run and in the face of a massive development policy). Structuralists, however, argue that their objectives are compatible (at best, presumably over the medium term). What is more, they prophesy that if a structural reform is not adopted the outcome will be a cyclical pattern of growth with inflation or, more likely, inflation with stagnation. Their reform seems to promise growth - but can it guarantee stability, or a manageable rate of inflation? The answer, at least partially, lies in the contemporary development of ad hoc policy measures (a structural reform if one insists) with reference to general economic policy in the inflationary economy; the short-run compatibility - or not - of the different objectives; and, the selection of 'new or special' financial policies for Latin America. For example, the adoption of a mixed cause origin of inflation, stressing the structural or underdeveloped characteristics, ought to place monetary policy in a strict framework of reference. Not unlike what the Radcliffe Report and the Joint Economic Committee did for advanced countries. Thus the scope of monetary policy may be reduced, but its role in achieving growth with stability is crucial (Dr. Prebisch's false dilemma, between growth and stability). The role calls for a 'new' monetary policy that works under the assumption of the predomin

of cost push, a certain velocity of circulation and the need to devise selective monetary measures - that extend from the banking system to non financial intermediaries and foreign savings - and which will ensure a simultaneous and sustained investment process and the control of inflation. The vagueness and ambitiousness of structuralism should not put one off, at least for two important reasons. In practice, the policies monetarists offer look bleak, expensive in terms of growth, and in the cases that matter incapable of achieving stabilisation. In addition, structuralism is only an extension of the economic policy dilemma which faces the world today. That is, the structural change structuralists want may be made equal to a planning policy or not, according to ideological tastes. Structuralists may only want a change in terms of mild public intervention (say, planning only the public sector); more extended intervention objectives (say, planning a mixed economy or radical priority of the public economic system (say, authoritarian central planning). One should be careful to note, however, that monetarists may also defend a certain public intervention. For example, the IMF's policies, the Alliance for Progress, and the policies of private and public foreign banks have required from Latin America the elaboration of development plans! In this sense, monetarists too range from absolute classic non-interventionists to mild interventionists (say, public sector planning and indicative planning policy). The difference in the degree of intervention is, of course, large and the ideological gap a fact. But, in this sense, the Monetarist-Structuralist controversy, as far as economic policy, is only a reflection of what economic theory has to offer in advanced countries, whether in the light of orthodoxy or neo-keynesian economics in the capitalist economies; or, in the light of soviet or Cuban economics. There is, of course, a third possible outcome: a development of a <u>special</u> economic policy peculiar to the economical, historical and political characteristics of Latin America, which would take the form of Latin American nationalism, and a new community of nations. If stricturalists in the last outcome sound idealistic or far-fetched, one only has to remember the complexity of the problem of growth with stability and the failure of traditional measures in Latin America.

c) The second part of the policy-cure approach, may be taken as a guide to the failure of orthodox stabilisation programmes inspired by the IMF in Latin America. In fact, most of the countries have undergone at one time or another such programmes. With the exception of Bolivia and Paraguay (where a case could be made, after qualifications for the IMF's policies) it is concluded that such programmes either failed or are doomed to failure (perhaps with a tentative theoretical exception in Brazil, where monetarists have a case; or, with Mexico, where orthodoxy in monetary

policy could claim a certain success). Concentrating on the clearest monetarist cases - Argentina, Chile and Peru - there was a contraction of credit, semi-deflationary policies in the public sector, wage controls, elimination of price controls, devaluation and a semi-free exchange rate, a liberal attitude towards foreign trade, and recourse to foreign capital. In all three cases either stabilisation failed - together with a fall in the rate of growth - or their short-lived success could not be really attributed to the orthodox measures. It seems that all countries which fail to adopt structural reforms, over the long-run, keep presenting chronic inflation, external disequilibrium, and slow growth, despite the stabilisation programmes. The cases of Bolivia, Ecuador and Paraguay are special inasmuch as stability is compatible with orthodoxy when the structure of demand suffers little change, little attempt is made to undergo intensive MST industrialisation, and the economy is primarily geared towards foreign trade and inflow of foreign capital, grants included.

4.- The above regional intercomparisons should clarify the conclusions in terms of the different country classifications resulting from the study:

a) The initial classification based on (1) inflationary and semi-industrialised countries (Argentina, Brazil, Chile, Colombia, Peru, Uruguay, and Mexico, as a special case) and (2) inflationary and non-industrialised countries (Bolivia, Paraguay and Ecuador) was useful. The classification remains valid for the end of the period (1965) with two major changes with respect to inflation. Mexico achieved virtual price stability and Bolivia and Paraguay reduced their almost hyperinflation to very mild price increases.

b) When the per capita rate of growth in output is incorporated into the picture, the first group was subdivided into (1) inflationary and stagnant economies (Argentina, Chile, and Uruguay); and (2) inflationary and growting economies (Brazil, Colombia, Peru and Mexico). For the end of the period, the classification remains the same, except for Brazil and Colombia which now move into the first group; and for Mexico, now a stable and growing economy. In the non-industrialised group, the initial picture was one of stagnation and almost hyperinflation (Bolivia and Paraguay)or very mild inflation with growth (Ecuador). For the end of the period, Bolivia had fast growth and mild inflation; and Paraguay and Ecuador mild inflation and slow growth. It is concluded that, mild inflation seems to accompany growth, while fast inflation seems to bring stagnation (except in Brazil). Moreover, mild inflation and

growth may, with time, result in stable growth if structural reforms are adopted well in advance, as in Mexico; or, if structural reforms are not adopted, when there is a buoyant external sector and little attempt to change the domestic economy.

c) Trying to classify the countries according to the origins of inflation in structural or monetarist factors leads to the following. With respect to the monetarist variables only Argentina, Chile, Colombia, Peru Mexico and Ecuador are for structuralism; while Brazil, Uruguay, Bolivia and Paraguay are for monetarists. Now, with respect only to the structural variables, a case may be made for all, except with the partial exception of Chile. Adopting the structuralist position, the controversial cases left are Brazil, Uruguay, Bolivia and Paraguay on the one hand; and Chile on the other. A good monetarist case as it was said, may be made for the former, with a major structural qualification: all four countries' chronic inflation was accompanied by a chronic foreign exchange bottleneck resulting from the conflicting trends in income, exports, imports and foreign capital accounts (when the overall bottleneck was reduced, as in Bolivia, inflation fell). Moreover, in all countries the lag in agricultural production, infrastructure bottlenecks and a regressive distribution of income may be stressed; Brazil in addition, has the most intensive IST process of the region. In Brazil, contrary with what other monetarists argue, growth and high inflation coexisted for a time. Arguing that the rate of growth fell does not convince structuralists, since this can always be blamed on the orthodox programmes adopted in 1964. Bolivia's inflation, incidentally, should be interpreted in the context of the 1952 Revolution. So one is left with a Chilean case that is neither a clean-cut case for monetarists or structuralists. That is, in relative terms Chile has not experienced stagnation in her foreign exchange neither has her growth been sufficiently fast to account for structural inflation. If a case wants to be made for structuralism, one has to look into the domestic economy: namely, the agricultural sector and public investment policy, but in the context of a weak and receeding industrialisation.

d) Trying to classify the achievements of orthodox stabilisation programmes will lead to the following: (1) a group composed by those countries where the policies have failed, at least judging by the continued pace of inflation (Argentina, Brazil, Chile, Colombia, Uruguay, and Peru); (2) another where the policies were relatively successful (Bolivian and Paraguay); and (3) Mexico where the stop-and-go policies during part of the period present a problem. The Mexican case is particularly interesting in that it presents a mix of long-run structural reforms together with

short term cautious financial policies in some periods, plus a subdued external imbalance - tourism and a net inflow of foreign capital, except in some years. Could this then be interpreted as a compromise between structuralism and monetarism? Not very convincingly because of the intrinsecally different economic theory and policy of both thesis. Mexican economic policy can be interpreted as s somewhat accidental switch from strcutural policies permissive towards inflation, to monetary semi-orthodoxy, specially in terms of the different public intervention approaches of the successive presidential regimes. The policies throughout the past forty years, however, present a streak of public intervention and nationalism - where there is nonetheless much domestic and international compromise - and emphasis on non-orthodox financial policies.

e) Resuming, the final performance (1965) of the economies leads to the following results: (1) unstable and stagnant (Argentina, Chile and Uruguay); (2) unstable and experiencing a fall in the rate of growth (Brazil and Colombia); (3) mildly unstable and growig (Peru); (4) stable and growing (Mexico). In the second group Bolivia presents a rise in the rate of growth and a remarkable reduction in inflation; Paraguay, stagnation and almost stability; and, Ecuador, slow growth and little instability. These relationships may be interpreted also according to the availability of foreign exchange (except for Chile).

5.- The controversy has now covered a good part of the last two decades, and for several reasons, will presumably continue and lead to further radicalisation. Inflation, external instability, and slow growth remain a feature of the region. Thereis still, despite the dreadful experiences, little consensus on growth and inflationary theories. Monetary and fiscal orthodoxy - and classic international trade assumptions, although mainly in economic and political circles abroad - still prevail and have official support. Even after the failures of Argentina and Chile in the early 1960's, there were sorthodox stabilisation programmes in Brazil, Colombia, Uruguay and, again in Argentina. The policy dilemma present to underdeveloped countries is a reality, assuming that they can freely chose to move towards central planning and revolution, as Cuba did; or, pacifically towards a mixed economic system closer to Western capitalist countries. There is, as it was said, athird alternative in the increasing feeling of 'continental' solidarity and nationalism - and hence a third world approach to economic policy - as in Chile, Peru and Bolivia. The results of this trend are weak and obscure, but however discouraging they point out to the Latin-American Common Market, the South American Pacific Association, and the

and the proposals of The Commission for Economic Cooperation in Latin America CECLA at the 1969 Conference of Viña del Mar. The controversy is in the ultimate analysis a reflection of conflicting groups in the domestic economy and conflicting economic and political relationships towards advanced countries.

The usefulness of the controversy, if one sistematises the issues, lies in the fact that it shows the experience of these countries, both with underdevelopment and the lack of a suitable economic policy. The experience furthermore may be projected towards a future understanding and remedy of the growth with stability solution. The controversy as one has tried to do here in a modest way, may serve as a background for case study work, both of financial and structural policies, that will lead to valid generalisations and the construction of a general theory for the region. On the one hand, Latin America still has to revolutionise its land tenure system, achieve a competitive industrialisation process, expand its foreign trade (perhaps the cornerstone of the whole future policy), create a suitable infrastructure and raise the standard of living and education of the majorities. And, on the other, it has to develop a peculiar and selective monetary and fiscal system to finance her growth process, as well as the best way to incorporate foreign savings and technology. While these problems remain (allowing for the fact that a theoretical and practical head-way has been made) and opinions are diametrically opposed, the controversy will remain and serve a purpose. Inflation in Latin America is a consequence of underdevelopment in the widest sense of the word, and the controversy a reflection of the fact that no general theory or development policy exist as such.

PART III

Chapter 2

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